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THE
NEW GOLDEN AGE



THE

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NEW GOLDEN AGE

AND

INFLUENCE OF THE PRECIOUS METALS
UPON THE WORLD

BY

R. HOGARTH - PATTERSON

AUTHOR OF 'THE SCIENCE OF FINANCE,' 'ESSAYS IN HISTORY AND ART,' ETC.

IN TWO VOLUMES

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P R E F A C E.

I HAVE been not merely a contemporary, but a studious observer, of the important events and interesting incidents of the Epoch of which I now at length write. It is when the Year is closing that we begin to sum up its characteristic features. It is when the trees of the orchard are becoming stripped and bare that we seek to reckon up the fruits of the season. And so, as the Golden Age, which I have watched as a contemporary, is now fallen into "the sere and yellow leaf," it is natural, and for the first time becomes possible, to write its History,—to exhibit and appreciate its effects upon the World; and also to unravel some problems in economic science, upon which there has been a conflict of opinion and (as seems to me) much serious error,—yet which during this memorable Epoch have been strikingly tested and illustrated by the light of Experience.

I was just beginning, partially, and still without

deliberate intent, the career of literature which since then I have followed, when the tidings of the Gold-discoveries suddenly rang like a peal of joy-bells over the world. For a while, partly because the dinning sounds of war and Revolutionary turmoil in Europe dulled or deafened the mind's ears, and partly from incredulity of such surpassingly good tidings, (for when before had such an immensity of wealth been discovered, literally free to all comers?), it was not until the year 1850 was nearing its close that the golden tales from the remote and secluded shores of the Pacific were dealt with seriously in the European Press. But soon the Gold-discoveries in Australia redoubled the excitement, as well as removed the incredulity originally felt as to the vastness of the treasures lying in the far off Gold-Countries, free for the hand of man to gather.

A student of History in wellnigh all its ages, and not least of the political and social condition of my own country, I had become impressed with the suspicion, if not conviction, that the fluctuations of social circumstance and the strange cry of distress and discontent which had pervaded our country since the glorious Peace won by Wellington at Waterloo—a Peace which left Great Britain, commercially as well as politically, at the head of the world, yet which only ushered in a dire yet mysterious period

of "hard times" at home—were largely traceable to the contemporaneous decline in the supply of the Precious Metals, which civilised mankind have canonised as Money; and that the few bright gleams of prosperity and of popular contentment—or indeed the only notable one, in 1843-6—had been in like manner largely owing to a transient cessation of monetary scarcity, owing to the new gold-supply from the Russian Mines. With such thoughts in my mind—vague and uncertain as they then were—impressed, also, by a sense of the subtleness and mystery of the modes and operations in or by which the canonised metals influence for good or evil the condition of mankind,—I was alike ready to hail with philanthropic joy the new Gold-discoveries, and to scan closely, with eagerly inquiring mind, the course of the World's affairs as affected by the marvellous and unprecedented flood of Gold which then began to pour into the world.

Accordingly, I anxiously listened to the news of the day, and carefully scanned the tidings from the new Gold-countries, as heralding a new and unparalleled period of prosperity to my own country, and of far-reaching benefits to mankind at large,—and most so, I anticipated, to the toiling millions of rude Labour, and indeed to the great Industrial class in all its various grades and memberships.

Thus, during the memorable Epoch through which

the present generation have been passing, I have kept watch, amid the more pressing work of a busy life, upon the manifold circumstances connected with the Gold-discoveries,—and most of all, upon the prosperous yet not unchequered course of Trade and Industry, together with the notable expansion both of Commerce and Production, which steadily absorbed the New Gold, concurrently benefiting the world at large, and especially those nations which stand in the van alike of commerce and of civilisation.

Indeed, if I may obtrude a personal matter into this Preface, I may say that the memorable event of the Gold-discoveries—with all its romance of events and puzzling problems for thought—diverted me from History at large, which had been and still is my favourite study, to the subjects of Finance and Monetary Science, with their perplexing problems and conflicting theories,—which, shortly before, had been fiercely debated, and had become questions of the day, in connection with the Bank Act of 1844—a legislative measure which seemed to me founded upon erroneous principles or theories, and detrimental in its effects upon the commercial and industrial interests of the kingdom.

Proverbially, nothing is more difficult than to write contemporary History correctly. It is so difficult to discern the inner burden and central

colour of events, which only reveal themselves fully through the character of their effects, or the results which flow from them upon the wide stage of the world. Hence it is only when great Events have fallen back into the general landscape of History that one can clearly discern their relative proportion and broad outlines. It is a difficulty which I must encounter,—not presumptuously, yet without trepidation. Future Literature will have a superior vantage-ground; yet my History must possess this advantage, that better than any subsequent author, I know and can reproduce or exhibit the actual “form and pressure of the times,” during this most memorable epoch of the Modern World.

In some parts of the work, probably, the historical accompaniment may appear to be redundant or ex-crescent; but I trust that such an impression will cease when the reader reflects how impossible it were to make intelligible the changes and fluctuations in the value of Money apart from the causes thereof in the contemporaneous condition of the civilised world. How idle would it be to write a Treatise on the vital fluid in the human body without intelligible reference to or description of the venous system, and of the chief changes in the living frame! Or how, except by noting the growth and changes in the nascent worlds of Modern Europe and America, could any one comprehend the striking

fact that the fall in the value of Money, consequent upon the discovery of the New World, lasted for merely a lifetime of some threescore years and ten, and then not merely stopped, but gradually gave way to a rise, despite the ever-increasing produce of the Mines, and continuously enlarging additions to the stock of the precious metals, the Money of the World. If, yielding to my native bent for historical survey, I have gone beyond this, I cry pardon of the reader, and submit in advance to the strictures of the critic.

I have investigated carefully, and have written with consideration. Yet the scope of the work is unusually wide and various, and (as it seems to me) it has so many bearings upon questions deeply affecting the national welfare that I would not have grudged almost any amount of careful revision. But "there is a time for all things under the sun," and there are seasons of life and circumstance when what the heart or hand findeth to do should be done at once.

Since this work was commenced, a great breach has been made in the ranks of the few well-known authorities upon subjects akin to those here treated of. Newmarch, Seyd, and Jevons — "old familiar faces" to me at the Council table of the Statistical Society — have passed "beyond that bourne from whence no traveller returns." May a younger

generation soon and successfully fill their places, and continue the investigation of those questions in Economic Science which are, now more than ever, of urgent importance to the wellbeing of nations and of all civilised Society.

R. H. P.

HAMMERSMITH, LONDON,
October 1882.



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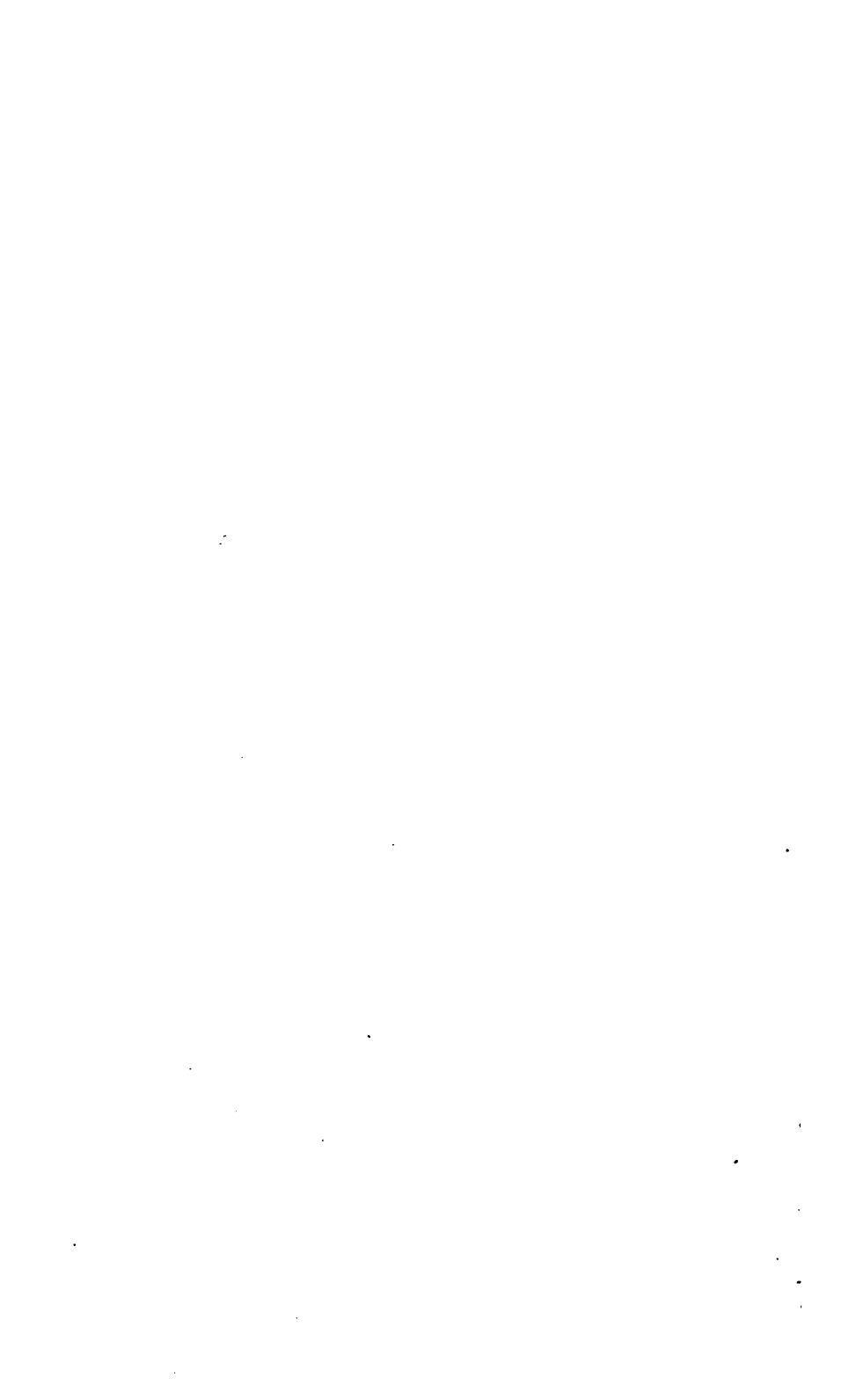
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BOOK FIRST

THE PERIOD OF DISCOVERY

AND

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ROMANCE OF THE NEW GOLDEN AGE

1848-56

CHAPTER I.

THE FIRST TIDINGS.—SCIENTIFIC FEARS, AND GENERAL ENTHUSIASM.

A GENERATION has begun to pass away since the world was startled by the discovery of gold-mines of previously unheard-of richness in the distant and secluded region of California. And when mines of equal richness of the same precious metal were immediately afterwards discovered in Australia, the excitement throughout the world knew no bounds. Greatest, of course, among the civilised nations, the excitement was not unfelt even in self-secluded China; and, like a hermit from his cell, the Chinaman began to migrate both to California and Australia in search of the golden ore, which mankind, by a marvellous concord of opinion, has agreed to canonise, as the most precious of substances and the chief material of universal money.

The grand excitement which followed the new gold-discoveries was marked by two entirely opposite currents of opinion and anticipation. Along with the calculations and judgments of Science there was

the vague but powerful sentiment of the masses. It has been said that the world—mankind in the mass—is wiser than any individual, however highly gifted with intellect or genius; and the result of these marvellous gold-discoveries supplies a new instance for those who hold this probably correct doctrine. In 1850 and 1851 the great body of the people in this and other countries were filled with exultation at the gold-discoveries. An impulse of hope and enthusiasm seized upon the popular mind; a new and unparalleled epoch of prosperity seemed to them to be opening on the world, and in which they would largely share. There had been “hard times” in our own country, and dire troubles in Europe at large. In England the collapse of the Railway-mania, the Irish famine, the bad harvest and commercial crisis of 1847, had occasioned widespread suffering among all classes; and the Chartist riots of 1848, which broke out more or less in all the large towns, from Edinburgh and Glasgow southward to the English metropolis, were not merely a sympathetic movement excited by the Continental revolutions, but an outcome of the great suffering among the masses of our people.

Indeed, the whole half-century previous had been a bad time. War and the heavy war-taxation came to an end with the crowning victory of Waterloo. Britain, too, then stood at the head of the world, in commerce as in political influence. Nevertheless, a strange and persistent distress pervaded our country. Excepting the brief gleam of prosperity in 1822-5,

when our people went mad over the liberation of South America from the rule of Spain, and when we lost several millions of our recently re-acquired gold in loans to the new Republics, while a frenzy of speculation created a baseless and transient prosperity at home—and again in 1843-6, when some fine harvests and a small but welcome influx of gold from the Ural mines, combined with the excitement of the Railway-mania to largely increase employment—the whole period had been one of unprecedented depression and distress, which naturally showed itself in political virulence and discontent. The expenses of government had been reduced to a minimum, and the army largely curtailed, by the firm hand of Wellington. Peace and retrenchment were the watchwords of the Whig Administrations which followed; sinecures were hunted out and abolished; even the Yeomanry was all but disbanded for the sake of saving a few pounds a-year. Yet all this economy was inadequate to meet the diminished productiveness of the taxes. Every year there was a difficulty with the Budget, sometimes a deficit. It became a saying that the Whigs were bad financiers, just as a similar saying has in later times been applied to the Conservatives. Mr Fawcett, in a recent book, remarks that during the thirty years between 1815 and 1845—although the national expenditure had reached its lowest point, and the rivalry with the French Empire in military armaments had not begun—there was absolutely no development of the Foreign Trade of the country.

"In 1841," he says, "the exports were about fifty-one millions a-year—the precise amount at which they stood a quarter of a century previously." At that time, he adds, the Burnley guardians wrote to the Home Secretary that the distress was far beyond their powers; at Stockport more than half the master-spinners failed before the close of 1842; and a committee of inquiry reported that half the population of Carlisle were likely to die of famine. So different has been our experience since 1850, that such statements seem wellnigh incredible. Even Sir Robert Peel's wise fiscal measures, and the completion of the Free Trade system by the subsequent Liberal Administration, could not contend against the tide of adversity. Just as the agriculturists, although enjoying Protection, had suffered intensely throughout these thirty years, so the manufacturers found Free Trade an inadequate talisman to ward off the epidemic distress. From 1846 to 1851 the times were at their very worst,—farmers and manufacturers suffering alike; while low wages and lack of employment fell heavily upon the working classes. It was during this epoch of "hard times" that, rather than face an expenditure of £500,000 by calling in at par the worn gold-coin then in circulation—afraid to ask for even this slight addition to the taxation—the Government (in 1842-3) actually left the loss to be borne by the public—the Banks only receiving the coin at a deduction of from a penny to threepence or fourpence upon each sovereign.¹ It

¹ As stated in last year's Report by the Master of the Mint, a sove-

is worthy of recollection, too, that it was just at the close of that dismal period (in 1851) that the Ministry of the day, for the sake of an insignificant addition to the current year's revenue, parted with the last rights of the Crown over Epping Forest,—a grand and picturesque recreation-ground, which, after a quarter of a century of costly litigation, was reopened to the public in the present year with appropriate ceremony by Queen Victoria, who formally declared the Forest “free to the enjoyment of her people for ever!”¹

It was upon this dismal background of universal suffering in Europe that the tidings of the Gold-Discoveries flashed like a ray of happy light,—quickly

reign becomes light after about eighteen years' wear. He estimates our present stock of gold-coin at almost a hundred millions sterling—of which fifty per cent is light: the deterioration being about three-pence in the pound, involving a loss of £650,000 in recoinage, and restoring the coins to their full weight.

¹ The preservation of Epping Forest was an instance of that kind of patriotism, common among Englishmen, which devotes itself to local questions. A poor old labourer, named Willingdale—a kind of “village Hampden”—together with his sons, first raised the standard of battle; and the contest was taken up by one person, then another—each and all of whom might have “let it alone” had they seen fit,—the Corporation of London soon leading the movement with their wonted public spirit. The war was waged against the most formidable antagonists; but the popular side grew stronger day by day, until at last we beheld the result in a forest pageant; under the conjoint auspices of Royalty and Guildhall, where Queen and people joined in celebrating a victory won by that which at first appeared so much the weaker side. The labourer's axe, which broke down the prohibitory fence and lopped the trees in spite of all notice to the contrary, opened the way for those who followed after. But for that sturdy stroke, entailing imprisonment and hard labour on some of the persons concerned, Epping Forest might now be split up into private estates.

broadening and brightening into what seemed a day-break of golden summer, full of hope and joy. The working classes, in tens of thousands, rushed off to the new golden lands, rejoicing to find good employment for their strong arms and hopeful hearts—thereby at once relieving the overstocked labour-market at home, and soon creating new markets for produce and additional employment for their fellows whom they left behind. It was a thrill of joyous elation such as had never before pervaded the population of Europe and America. On the banks of the Sacramento river and on the alluvial plains of Ballarat there was gold in abundance—gold everywhere. The news flashed like a beam of sunlight into every workshop, and was talked of by the shepherds on every hillside. There were new homes for our half-starving people beyond the sea,—new regions where political Discontent might become its own master. And these golden stores of Nature were as open to the poor as to the rich,—or indeed peculiarly the property of the working-man. The stores of silver and gold obtained at the first discovery of the New World had fallen as spoil to the Spanish chiefs and ruthless adventurers who followed in the wake of Columbus. Not an ounce of the precious ores had fallen to the lot of the masses; and after the treasures of the Incas and Montezuma had been reaped, the working of the mines of Mexico and Peru had been forced upon the poor Indians under as merciless a system of slavery as ever disgraced the world. The silver-mountain of Potosi had been the grave of

myriads of the native race,—by one of whom its veins of sparkling treasure had first been discovered. But now the golden field was open to all comers; and at first, and for several years, the gains of gold-mining were won solely by the hardy working-men from the old seats of civilisation.

While this hopeful enthusiasm pervaded the great body of the people, the Learned Class looked on the new discoveries in a much less hopeful light. What the opinions of our statesmen and practical politicians may have been (if they formed any) it is impossible to say; for, strange as it may appear, they made no reference to the subject.¹ But the Economists and other scientific authorities were chiefly impressed by the unpromising and adverse features of the case. To the Economists the primary and predominant view was one of alarm. The chief consequence of these discoveries of gold, they said, would be a great and rapid fall in the value of Money, and consequently a serious revolution in Property. The common saying was that the sovereign would quickly lose half its value; that wages and prices would be doubled; and capitalists would find their accumulated wealth steadily vanishing from year to year. Thus a monetary revolution was predicted,—a barren levelling, a sweeping away of the Past, and

¹ If I mistake not, the only allusion made in Parliament to this most momentous of contemporary events occurred so late as the year 1879, (subsequent to the publication of two articles of mine in the *Edinburgh Review*), when Lord Beaconsfield called attention to the serious embarrassment which might arise in consequence of the great falling-off in the yield of the Californian and Australian gold-mines.

a fresh start as regarded the accumulations of wealth, —as complete as the worst form of political revolution could accomplish, and far more severe than any confiscation that could be effected by the most despotic employment of class-taxation. So formidable did this apprehension appear, that the only comfort for those who shared it was in the predictions of the Geologists, who, judging from past experience of the world, held that the new mines would soon be exhausted, and that the Golden Age would pass away almost as quickly as a dream. How much would the world have lost had these anticipations been realised !

The opinions and anticipations current in scientific circles in 1850-1, and which in their chief form continued to be held for several years thereafter, may be classed under three heads.

First, as to the continued productiveness of the new mines. Upon this point scientific opinion was unhesitatingly adverse. The history of gold-finding throughout many previous centuries was pretty well known ; and from the Spanish and other gold-mines of the Roman world downwards, the same tale was recorded —namely, that they were surface-mines, gradually, if not quickly, worked out. Unlike silver, gold is never found in mass, in veins or lodes ; it is interspersed in threads or flakes throughout quartz or other hard rocks : and there was no known instance of gold-mining having ever been conducted profitably in the native rock. The common and accepted explanation of the cessation of the gold-

mines of the ancient world, particularly those worked in Spain by the Romans, was that when the miners had exhausted and penetrated down through the auriferous detritus to the matrix rock, the working became unremunerative, owing to the extreme hardness of the rock:—an explanation, so far as I have observed, which is still accepted, and is doubtless correct in the main, although some of the Californian facts which we shall notice by-and-by appear to suggest a wholly different cause, likely to have been in operation in some quarters. Past experience, then, and certain well-known geological facts, were adverse to the continued productiveness of the new mines. Moreover, the very richness of these mines, far surpassing anything of the kind previously known, seemed to class them as an exceptional phenomenon, likely to vanish with exceptional quickness. Accordingly Sir R. Murchison, the most eminent geologist of the day, maintained that there is a “Currency Restriction Act of Nature”—that the supply of gold from the alluvial washings would soon be exhausted, and that, when the excavations came to be made in the rocks or mountains from which the auriferous detritus proceeded, the work would cease to be profitable, owing to the hardness of the strata in which the gold is embedded. This was the accepted, indeed unquestioned, opinion among geologists; and it carried general assent, being in perfect accordance with previous experience.

At the time when this opinion was expressed by

Sir R. Murchison (October 1850), the extent of the auriferous alluvial soil in California had not been ascertained.¹ There were only vague reports, which at first were received with general incredulity. There was one man of eminence, however, who gave credence to them—the late Sir Archibald Alison; and the hopeful enthusiasm with which he hailed these new gold-mines, as fraught with vast blessings to mankind, led him to accept these reports even more fully than has been warranted by subsequent experience. He formed an entirely opposite opinion as to the continued productiveness of the mines from that entertained by the geologists.² He maintained that, as a matter of evidence, the Californian auriferous deposits were so extensive that they would not be exhausted for many generations; and as a question of mechanical and chemical science, he held that, when the auriferous alluvium was exhausted, gold-mining would be profitably carried on in the parent rocks or mountains. On the first of these points—the extent of the auriferous alluvium in California—he said:—

“What is the scraping or excavations of sixty or eighty thousand men on so vast a surface? Conceive every one of those persons *daily digging his own grave* in this auriferous region: how long will it take them to go over the whole surface and exhaust its treasures? Suppose each

¹ See *Quarterly Review* for October 1850.

² *Blackwood's Magazine*, January 1851. Article—“The Currency Extension Act of Nature.”

digging occupies two square yards, there will be 1,500,000 of such diggings in a square mile; and if each person excavates a digging a-day (which is probably as much as can be calculated upon at an average, as the operation is much impeded by water), 100,000 persons will take fifteen days to turn up and exhaust one square mile. Supposing that the 100,000 persons work 300 days in the year (which is more than can be calculated upon), they will only turn over and thoroughly search twenty square miles in a year."

Accepting the largest estimate or rumour of the extent of the auriferous alluvial surface, he said, this rate of working would take "above four hundred years for even that large army of labourers to exhaust the gold-region." And he maintained that, after making all allowance for errors of exaggeration, "if the accounts of its extent and riches are at all to be relied on, there is ample room for a vast annual addition to the treasures of the earth for a great many generations to come."

Here, then, was a very striking divergence of opinion relative to the continued productiveness of the new gold-mines. As we shall show immediately, it is only recently that the real character and distribution of the golden detritus in California have been ascertained, and possibly even yet they have not been ascertained with anything like precise knowledge; and in some of Alison's views, as in those of his opponents, there were mistakes which are now manifest. Nevertheless, as regards the *alluvial* gold-beds, Alison was substantially right, and the geologists, as subsequent experience has shown, were entirely wrong. Thirty years have elapsed since

the discovery of gold in California, and the mines are far from being exhausted. The annual yield is much less than at first, owing to only a small area of the alluvium being workable at any one time; but the alluvium is as rich in gold as ever, while a very large portion of it still remains untouched.

In 1858, after eight years of further experience, M. Michel Chevalier, an eminent authority upon such subjects, published his views upon the gold-discoveries. By that time all doubt as to the vast productiveness of the new mines, both in California and Australia, was at an end. The predominant sentiment, indeed, and the one which inspired his book, was one of alarm at the vastness of the effects which these new supplies of gold were calculated to produce. His estimate of the continued productiveness of the new mines—and, although very defective, it is the latest which has been given by any man of eminence—was, that the Californian and Australian gold-mines will continue at their present rate of productiveness for a hundred years. The grounds for his estimate may be briefly stated thus:—In the Ural mountains they wash, with profit, sands which contain only one ounce of gold in 450,000 ounces of earth; and in the valley of the Rhine the most favoured spots yield only one part of gold in seven million parts of earth. On the other hand, the yield of the rich gold-fields of Siberia is 1 in 100,000; and according to various accounts the yield of the good soils of California and Australia is frequently as much or more. Supposing, then, said M. Chevalier, that

the soils which can be most advantageously worked in California and Australia produce at this rate, and that the auriferous beds are, on an average, a mètre (39 inches) in thickness, 1500 acres would yield £16,000,000—*i.e.*, more than an ordinary year's produce for each of those countries; and a hundred times this space would be sufficient to continue the present yield for a century. Now, this extent of auriferous soil, requisite for a century's production at the present rate, is less than the area of Middlesex; and M. Chevalier held that it was not a very sanguine view to suppose that both in California and Australia auriferous alluvial soil of this extent and richness would be found. To this estimate M. Chevalier added the following remarks:—

“There are several ways in which such a field of operations may be arrived at, for it must be borne in mind that frequently these auriferous banks are much more than a mètre in depth; nor must it be forgotten that their richness may greatly exceed that of 1 in 100,000. In fact this return is not the maximum below which the extraction would necessarily cease to be profitable: it is very far from it. There have been worked, and are now being worked, in all the auriferous regions, some banks the produce of which is not one-fifth or one-sixth as much as the above.”—(Cobden's translation.)

The point to be here noted in these remarks is, that although writing ten years after the first discovery of gold in California, M. Chevalier takes a yard as the average depth of the alluvial gold-beds—an estimate substantially in accordance with the expectations of the geologists, and not much less

than the estimate made by Alison. But had any of these estimates of the depth of the gold-beds not been largely exceeded in many instances, the anticipations both of Alison and Chevalier as to the continued productiveness of the mines (which anticipations were based upon a most exaggerated estimate of the *superficial extent* of the gold-beds) would have been falsified, and the golden age in California, as the geologists predicted, would have come quickly to an end.

All parties, further, were agreed that when the gold-bearing alluvial soil was exhausted, there would still remain the parent gold-rocks or auriferous mountains. The only question was, Would it pay to work them? The geologists, judging from the past experience of mankind, held that such gold-mining would not be remunerative; Alison, relying upon the vast power of modern machinery, maintained the opposite, and also believed that the greater part of the Rocky Mountains, in California, would be found auriferous. However extravagant such an opinion may appear, and wholly fallacious as it has proved to be, it was analogous to the opinion which had been expressed by the great Humboldt with respect to the argentiferous character of the chain of the Andes. "In general," said that great traveller and eminent writer, "the abundance of silver is such in the chain of the Andes that when I consider the number of veins which have either remained unopened, or been only imperfectly worked, I feel inclined to believe that Europeans have hardly begun to draw upon the

inexhaustible stock of mineral riches contained in the New World.”¹ Alison said of California :—

“What is the alluvial gold-region compared to the mountain-region from which the precious metals with which it abounds have been torn down by the storms and winter tempests of thousands of years? If you find a detritus of a certain description in the mixed sand and gravel of a plain, you may predicate with perfect certainty the existence of mountains and rocks of the same formation in the higher regions from which it has been brought down. Whence has all the gold come which in the alluvial plains of California is producing such treasures, and changing prices over the whole world? It has come down from the mountains. And what must be the metallic riches with which they are charged, when the washed-down gravel at their feet is so prolific of mineral wealth?”

On the question whether the working of these parent rocks would be profitable, he said :—

“Granting that the veins of gold, when they go deep, are embedded in very hard rock, what is to be said to the cropping out of the veins over the vast extent of the auriferous Rocky Mountains? If the wasting away of wintry storms on the tops and sides of these mountains brings down such quantities of gold with the streams which furrow their sides, must not the laborious hand of industry prove equally efficacious? If the expansive force of a rapid thaw, following severe frost, can rend the rocks in which the gold is embedded, is not the power of gunpowder or steam equally great?”

Nothing could be more reasonable than these inferences. The subsequent success of quartz-mining—which now is the chief source of gold-finding in

¹ *Nouvelle Espagne*, iii. 342-3—edit. 1824.

Australia, and also, in lesser degree, in California—has proved the correctness of the latter of these inferences. Had the former likewise proved correct—had the quartz rocks, from which proceeded the auriferous gravel so widely spread over the Californian valleys, still existed in the mountains, it is hardly possible to conceive the magnitude of the revolution in moneyed wealth which must have ensued, or to conjecture what changes would thereby have been produced in the position of gold as Money. But, in the sequel, we shall have to show the strange geological fact that the parent quartz-mountains have wholly disappeared, ages ago, before even the Red Indian began to rove in the Californian valleys; and, stranger still, that the grand source of the gold, as now existing, is the broad and deep channels of long-vanished rivers, whose beds, filled with auriferous quartz-gravel, now run high and dry among the uplands, crossed and seamed by the tiny rivulets and ravines of the present day!

Such were the opinions entertained in regard to the character of the Gold-mines, both of California and Australia. The opinions and doctrines contemporaneously held relative to the effects of the produce of the Mines upon the affairs of mankind are still more worthy of mention. They represent the scientific knowledge of that time; and, in summarising them, we shall notice only those which were held by eminent authorities in economical science.

The second opinion held, and still more confidently, indeed universally, in 1850-1, was that

there would be a great and speedy fall in the value of gold, and of money generally—an opinion not less confidently held, and more elaborately expressed, several years afterwards. But even in connection with this matter there was a discordance of views; for, while all were agreed that a great fall in the value of money was at hand, there was a wide variance of opinion as to the effects expected from that fall: some writers, the majority, regarding the change as a disaster, while others looked forward to it as fraught with blessings. As often happens, both parties were right, each from its own point of view; but, as events have shown, those who took a hopeful view of the matter have been fully justified. The majority of writers on the subject, especially the Political Economists, regarded the new gold-supplies simply or exclusively as affecting the amount of currency in its relation to the then existing requirements for it,—without considering the expansion of commerce which these gold-supplies would facilitate, and which expansion would largely provide new requirements for the gold. Thus regarded, of course, a great fall in the value of money was inevitable—a revolution of prices and property, which *per se* is undoubtedly an evil. The other party, of whom Alison was the first and chief, looked mainly at the new gold-supplies as promoting commerce, and therewith production and employment, and also as lightening the pressure of taxation, and of mortgages and all fixed payments, which are mainly owing by the poorer classes to the rich.

Alison hailed the new gold-mines with a philanthropic enthusiasm. More than any other author, he had discerned the evil effects upon our own country of the decline of the gold and silver mines in South America and Mexico, owing to the anarchy produced by the revolutions in those countries. In this diminution of the supplies of the world's currency he discerned one of the causes of the extraordinary depression of trade, and of the widespread and mysterious distress, which had prevailed in this and most of the other countries of Europe during the first half of the present century.¹ He saw that, instead of increasing with the population, the supplies of the precious metals had sunk below their old level,—thereby raising the value of money, and increasing the difference betwixt rich and poor, while augmenting the pressure of the National Debt, which in this country at that time required for itself much more than half of the whole taxation. Moreover, commerce was checked for lack of the specie requi-

¹ This notable dearth of the precious metals has recently been acknowledged in very emphatic terms by the highest authority upon such subjects—viz., Mr Newmarch. In a paper read before the Statistical Society in May 1878, Mr Newmarch said :—"Prior to 1849 the annual supplies of gold available for all the purposes of coinage, bullion reserves, and commerce, had been barely sufficient to meet the wear and tear of the gold coins in circulation. . . . There is now no question that, for about twenty years prior to 1848, the annual supplies of gold had been insufficient to meet the wear and tear of the coin in use, the requirements of the arts, and the needs of enlarging industry, commerce, and population. There had been a slow but steady and progressive tendency towards lower prices, and therefore towards a discouragement of enterprises in which lapse of time and the state of distant markets had to be considered. The New Gold dissipated all these discouragements."

site for the payment of trade-balances, and without which international trade cannot be carried on. Alison's views on this subject were somewhat exaggerated, in some parts erroneous; but, very happily, in relation to the Currency Restriction Act of 1844, he termed the discovery of the new gold-mines a "Currency Extension Act of Nature," and hailed it as the beginning of a new era of prosperity for our own country and for the world at large.

Howsoever differing in the character or complexion of their anticipations, all parties alike were agreed that a great fall in the value of money was at hand. M'Culloch, in his 'Commercial Dictionary,' speaking of the precious metals, had observed:—"Should eight or ten millions yearly, in addition to the present supply, be obtained from any other source, it will produce a gradual alteration of prices, similar to that which took place three centuries ago on the discovery of the mines of Mexico and Peru." Upon which statement Alison said:—"No one can doubt that this observation is well founded; but if the effect of eight or ten millions annually added to the treasures of the world would be so considerable, what must be the effect of the addition of sixteen or eighteen millions? Yet this addition is just now going on."

This was the state of matters at the beginning of 1851. But in that year the Australian mines were discovered, and the annual supply of gold became vastly increased. Beginning with 1848, before the new gold from California came into the market, the

annual supply of gold (that of silver remaining stationary at £8,000,000) rose rapidly from eight to no less than thirty-six and a half millions sterling in 1852; so that between 1848 and the end of 1858 upwards of 230 millions of gold had been added to the pre-existing stock.

In 1858, M. Michel Chevalier, one of the most eminent political economists of France, impressed by the vastness of the new gold-supplies, and by the effects which they were likely to produce upon the value of money, published his well-known book 'On the Probable Fall in the Value of Gold, and the Consequences likely to ensue from it.'¹ The book was immediately translated and published in this country by Mr Cobden, who entirely shared M. Chevalier's opinions, and who desired to give public warning of the monetary revolution that was impending. In his preface Mr Cobden said:—"It is estimated by M. Chevalier that the present yield of gold amounts in ten years to about as much as the entire production during the three hundred years which intervened between the date of the discovery of America by Columbus and the year 1848, when the mines of California were discovered." M. Chevalier did not in precise words venture to fix the exact extent of the coming fall in the value of money; but the facts which he adduced, and the

¹ *On the Probable Fall in the Value of Gold: the Commercial and Social Consequences which may ensue, and the Measures which it invites.* By Michel Chevalier. Translated, with Preface, by Richard Cobden. Manchester, 1859.

general tenor of his remarks, were to the effect that within ten years from that time the fall would amount to one-half.

M. Chevalier sought to establish this view by several lines of inference. First, as to gold alone. At the beginning of the present century, the annual addition made to the stock of gold amongst the nations of Christendom was barely £2,500,000; and after 1830, when the Ural and Siberian mines began to be worked, the annual supply of gold gradually rose till it reached £8,000,000, at which amount it stood in 1848. *Now*, said M. Chevalier, the annual supply of gold amounts to £38,000,000; so that the supply is now (in 1858) fivefold greater than it was ten years ago, and fifteen times greater than it was at the beginning of the century. Further, maintaining that the supply of gold would continue undiminished for a very long period, he said that during the next ten years there would be added to the world's stock as large a quantity as had been poured into the world since the end of the fifteenth century, which amount is estimated to have been about 400 millions sterling. Next, taking gold and silver together, M. Chevalier remarked that, during the three and a half centuries which followed the discovery of America, 2000 millions sterling, or at the rate of 5½ millions annually, had been added to the gold and silver in the world; and that the hectolitre of wheat, which in the years previous to 1492 cost at Paris from 2s. 6d. to 2s. 9d., had cost during the last half-century about 16s. 8d. Thus, measured by

the price of grain (the usual test appealed to in such questions), the value of money during the last three and a half centuries had fallen to merely one-sixth of what it had been. If, then, the addition of 2000 millions sterling of the precious metals, spread over 350 years, caused a fall of 84 per cent in the value of money, what, he asked, will be the effect of 500 millions sterling of gold and silver (400 millions of gold and 100 millions of silver) poured into the market during the next ten or eleven years? This quantity, it is true, is only one-fourth of the amount added between 1492 and 1848; but as it would be poured into the market in one-thirtieth part of the time, its effect upon the value of money would, of course, be much greater than one-fourth, in consequence of the rapidity of the supply.

Again, looking at the cost of production as a basis of estimate, M. Chevalier equally convinced himself, as well as Mr Cobden—we might say the public generally—that a great fall in the value of gold, and with it of money, was close at hand. Taking California and Australia together, he said, the ordinary daily earnings of the miner are 16s.; and yet, he added, at the present hour men will labour at gold-finding (witness the gold-washers of the Rhine), although they make only 15d. or 20d. a-day. But comparing the earnings of the workers at the new mines even with the highest rate of wages which generally prevails in temperate climates and among the most prosperous nations of Europe, this, he reckoned, may be taken at five francs, or 4s. 2d.:—

"It follows," he said, "that the value of gold might fall till nineteen francs (16s.) should correspond only to the amount of well-being which at present can be obtained for five francs (4s. 2d.) By this calculation the fall in the value of money would in the end amount to three-fourths—in other words, to procure the same amount of subsistence, it would be requisite (other things being equal) to give *four* times as much gold as at present. According to this, we are very far from the end of the crisis."

Entertaining, as he did, and, as was then thought, with good reason, these anticipations of a vast and also a speedy fall in the value of money, M. Chevalier, like most of the previous writers on the subject, pictured to his readers an alarming prospect. He said :—

"This transition will be an interval painful to pass, and will be marked by innumerable shocks and sufferings. . . . The value of all kinds of property will be subjected to a painful uncertainty and to injurious fluctuations. It will be still worse for those persons whose incomes consist of a sum of money (napoleons or sovereigns) fixed in advance. They will live in a perpetual state of trouble, anxiety, and uneasiness. *They will sink by whole sections from their present state* to another, in which they will enjoy only *half* of their present comforts,—reasoning, as I always do, upon the assumption that gold will fall to the half of its present value. They will be flung headlong, without rule or measure, down to a lower station, and without ever having the chance of preparation; for it is the very essence of changes of this kind, subjected as they are to many opposing influences, to pursue an irregular and disorderly course."

This was a one-sided, a purely capitalist's view of the matter; for undoubtedly a fall in the value of

money, although inflicting a loss upon the owners of some kinds of property, like the Funds and other purely moneyed investments, would bring a corresponding gain to other classes. The pressure of National Debt, which now occasions a large part of the taxation of all countries, would be lightened, equivalent to a reduction of taxation ; and, speaking generally, the hardship resulting from a fall in the value of money would fall upon the wealthy, the class best able to bear it, while the advantages would chiefly be reaped by the poor. Nevertheless, so great a change as that which M. Chevalier so confidently anticipated—viz., a fall of one-half during the next dozen years—was a truly formidable prospect. Mr Cobden, in his preface to M. Chevalier's book, said ;—“ I wish I could believe that this work will be read as widely as, from its great importance, it deserves to be. It is a subject on which the early possession of knowledge and the exercise of forethought will confer great advantages over ignorance and indifference, and afford the only safeguard against probable loss.”

“ Loss !” This, then, was the expected result of the new gold-mines,—the anticipation held almost universally by the learned class, and especially by the political economists. The uses to which the new gold-supplies could be put—the vast support which they would provide for the new or recently acquired and rapidly increasing powers of production and conveyance, were hardly noticed, or rather were wholly ignored, by those writers. Even Mr Cobden, a thor-

ough commercial man, took no note of the probable expansion of commerce, especially in the form of international trade; nor of the fact, now so obvious, that this expansion of the requirements for specie would *pro tanto* prevent a fall in the value of gold. Yet, already, at that very time, the expansion of international trade and investment of capital in foreign countries was doing its work. Ten years had passed since the discovery of the Californian mines, and fully 240 millions sterling of gold (160 millions in excess of what the old mines would have yielded during the same period) had been poured into the world; yet neither M. Chevalier nor Cobden could say that any fall in the value of money—in other words, a rise in prices—had then occurred! A fact of this kind, so contrary to their theories, might well have suggested to them that there were some elements of the question which had escaped their observation. Nevertheless the world had then to get its lesson. Chevalier and Cobden only gave expression to the all but universal opinion; and so late as 1858 the conviction was held as confidently as at the outset, that the result of the new gold-mines would be a disastrous revolution in the value of money.

At the time when M. Chevalier wrote, the prevalent opinion was, that, after all, it is a great mistake to suppose that new supplies of gold make any addition to the real wealth of the world. They were regarded merely as a barren increment of the volume of metallic money; each increment proportionately reducing the value of the previously existing stock.

Despite the circumstantial evidence of facts to the contrary, in the remarkable and widespread prosperity which followed the discovery of the gold-mines, this opinion is entertained by many able persons at the present day. It raises a question of fundamental importance, which can be most satisfactorily answered after we have shown the manner in which the new gold becomes apportioned among the commercial countries of the world, and gradually accomplishes a rise of incomes, leading to the creation of additional wealth.

Another opinion relative to the effects of the gold-mines which prevailed at the outset, especially in 1851-2, was that the new supplies of gold would permanently reduce the Rate of Interest,—an opinion which, as Mr Tooke states, compared with the others, “was productive of the widest practical effects on actual business.” The doctrine was, that the influx of the new gold would keep the Reserve of Money seeking employment so constantly in excess of the requirements for it, or the means of investment, that the Rate of Interest would permanently be lowered; and also that the recurrence of any season of financial pressure would thenceforth be rendered impossible. As a lower rate of interest means a cheapening of production and extension of industry, and as monetary crises have been the bane of this country, it might be thought that the prospect thus opening to view would have been hailed with universal satisfaction. Nevertheless Pessimism here again came into play. Mr Lalor—a name now

forgotten, but who deservedly enjoyed a contemporaneous reputation—in his book on ‘Morals and Money’ (published in July 1852), in which this view of the effects of the gold-mines was ably propounded, was led to anticipate evil consequences from the change. He predicted “a far more powerful tendency than ever to that kind of excess in the real and apparent amount of Capital, continually seeking investment and unable to find employment, which has hitherto been found productive of disastrous and demoralising speculations.” Just as if an increase of Wealth, or rather of the facilities for Industry and production, was an evil, because they are sometimes abused !

Finally, the most confidently held of all the opinions so prevalently expressed between 1850 and 1859 was that there would be a great rise in the value of silver. The production of gold was quadrupled, while the supply of silver remained stationary, and with little change since the beginning of the century. It was most natural, therefore, to reckon that the relative value of the two metals would undergo a change, and that gold would lose a portion of its old supremacy in value. Moreover, as then appeared, silver (its supply being stationary) would retain its old absolute value—its value as measured in labour and commodities, though not in gold ; whereas the value of gold would be constantly changing and falling as the new supplies of that metal poured in. So certain and serious did these results appear that the Dutch Government demonetised gold, and adopted

silver as its standard money. Holland is a small country, in which such a change can be effected without much inconvenience; and other and larger States would have followed its example but for the greatness of the difficulty which, as large States, would beset them in such an undertaking.

Such were the anticipations and doctrines prevalent among the learned and scientific classes at the outset of the Gold-discoveries. Any one who was at maturity in 1850 and 1851, when the gold-fever and general excitement were at their height, or even during several years thereafter, and who compares the opinions then prevalent with the facts of the present and intervening periods, cannot fail to be struck by the complete discordance between the actual events and the anticipations which were so confidently held. Of late years the French adage, "what always happens is the unforeseen," has been so frequently and strikingly verified that the saying is now accepted almost as an axiom; and certainly the course of the new Golden Age has furnished one of the most remarkable illustrations of the fallibility of human judgment and intellectual foresight. Every one of the chief calculations and anticipations made by scientific authorities a quarter of a century ago, and even up to a later date, has proved wrong. The course of events has run quite differently. Our fears have been disappointed, our best hopes have been more than realised; and the third quarter of the present century has been by far the most prosperous period which modern Europe

has experienced, or doubtless which the world has ever beheld.

It would be puerile to regard the erroneousness of some and the failure of all of those opinions as to the effects of the gold-mines, as a slur upon the reputation of the eminent men who propounded or shared them. It is only a proof, and a most striking one, of the fallibility of the ablest intellects, at times, even when judging of effects actually in operation, —still more, of the difficulty or impossibility of forecasting the Future of Nature and the workings of Providence. At the same time it is obvious that the judgments of financial authorities were then warped by the influence of the once famous "Currency Principle," which gradually grew up amongst us after the great French War, and which, in maturity, so largely affected our monetary legislation in 1844-5. The long suspension of specie-payments during the Great War cast a disquieting shadow upon the judgments of our monetary authorities. A "depreciation" of the note-circulation of the kingdom was ever in their thoughts and before their imagination. Every increase in the note-circulation, such as nowadays we disregard and know to be due to natural and proper causes, in their eyes was an omen of depreciation. Every "drain" or export of specie was attributed by them to a depreciation of the currency. The doctrine was this: that Banks, for the sake of profit, are ever seeking to extend their circulation, and force out their notes by giving excessive credit to their customers; that

thereupon the currency becomes depreciated,—finding this, the holders of notes take them to the banks and demand and obtain gold in exchange,—thereby making a drain upon the banks; finally, as the gold is worth no more than notes in this country, the gold was sent abroad. How entirely wrong all this is, need hardly now be said. But this Currency Principle or Doctrine was still in full vogue in 1850, and extraordinary effects were attributed to every variation in the amount or volume of the Currency, without any regard being paid to the vicissitudes of trade and the varying monetary requirements of the community.¹ In like spirit, the New Gold was expected to be, and to act, merely as a useless addition to the existing stock of money,—as if the precious metal were dropped as a superfluity from the clouds, instead of reaching us, and diffusing itself over the world, through the expanding channels of production and commerce.

As previously stated, the opening of the Golden

¹ The expansion of the aggregate note-circulation of England upon which Mr Jones Lloyd (now Lord Overstone), in his evidence before the Parliamentary Committee of 1840, founded his charges of mismanagement against the banks of issue, and of depreciation of the currency, only amounted to two millions and a half. Moreover this expansion took place gradually, being spread over a period of five years,—the note-circulation (taking his own figures) being £28,368,000 on the 1st January 1834, and £31,020,000 (its highest point) on the 18th September 1838. To this “over-issue” he attributed the severe crises which occurred between 1836 and 1839; and it was alluded to in similar spirit by Sir Robert Peel in June 1844, when his Bank Bill was making slow progress, and when he said, “the House must be responsible, not the Government, if the present measure failed, and a period of *increased issues* again arrived.”

Age presented a striking contrast between the vaticinations of the learned and the sentiments or instincts of the masses. While philosophers grumbled in their closets, or elaborated their desponding theories in the press, the nation at large took an enthusiastically hopeful view of the consequences of the gold-discoveries. Moreover, other circumstances, of almost equal influence, combined to swell the song of hope. It was the time of the first Great Exhibition of Arts and Manufactures—a World's Fair, in which all civilised mankind took part. England was then at the height of her manufacturing supremacy. No other nation could compete with her. The fabrics of her looms were welcomed in every country; the enduring products of her iron-trade were sought for all over the world. The source of all modern industrial achievements, the coal-supply, was then immeasurably cheaper and more abundant in the British Isles than elsewhere. The coal-fields of the United States had hardly begun to be worked. Further, England had gained a start over all her industrial rivals in Railways; and as the iron-road and steam-navigation spread over the world, a seemingly endless market was opened for her two staple natural productions, coal and iron. Taste alone, a sensibility for Fine Art, was wanting to make the British artisan peerless in every branch of manufacturing industry. Inaugurated by Royalty, the Great Exhibition of 1851 attracted universal attention, and its success gave rise to the most sanguine hopes. It was a Peace

Festival. War was to be no more. Nations were to become friends, drawn together in amity by the golden bonds of Trade. Henceforth the only international contests were to be those of Commerce; the only rivalry, in producing cheapest and best the host of commodities needful for the wants and pleasures of human life.

The years 1851-2 and the earlier part of 1853 form a bright and peculiar spot in History; and it is strange to look back upon it, and see how the various hopes and fears then entertained have fared. It was pre-eminently a hopeful epoch, this opening of the Golden Age,—full of dreams of universal Peace, and of high hopes for Humanity; while the golden flood from the new Mines was pouring in, and rapidly rising higher and higher, in the Banks and other reservoirs of Money. Yet in one respect, at that very moment the wheel of Fortune, the course of Providence, was changing. The Long Peace was coming to an end. The forty years' rest from international conflict given by, or at least which followed, the crowning victory of the "Iron Duke" on the fields of Belgium, which made "Wellington and Waterloo" the toast of our manly and triumphant fathers, was on the eve of giving place to a new epoch of War,—of which not even yet have we seen the end.

A similar epoch of Hope had preceded the outbreak of the great French Revolution,—when the social theories of Rousseau, the materialism, toleration, and human fraternity preached by the Encyclo-

pedists were becoming fashionable and also current among the masses ; while the scientific dreams of Condorcet as to the endless prolongation of human life likewise touched the imagination ; and Montgolfier's balloon seemed to open a new world to human energies, adding the realms of air to the dominion of earth. Later, the Fall of the Bastille was held to betoken the death of an old world with its antiquated fabric of society ; and the opening of the Constituent Assembly seemed to portend a Millennium of freedom and fraternity, of world-wide peace and prosperity. Yet within a couple of years thereafter, France became drenched with the blood of its people, "The Revolution, like Saturn, devoured its own offspring." The proscriptions of Marius and Sylla, sanguinary as they were, were restricted to the upper classes of the Roman world : it was only "the tallest poppies" that the merciless Dictators thought it worth their while to decapitate. But in France the Reign of Terror was universal, and the maxims of Fraternity were quenched in the Noyades of the Loire and Fusillades of Lyons ; while Europe, aghast at these horrible excesses of Revolution, and attacked by the military genius of Napoleon the Great, became plunged into a quarter of a century of universal war.

In truth, rare and brief though they be, epochs of human enthusiasm, of noble aspirations, and of expectations of a coming Millennium, appear to be natural incidents in the career of mankind. Well-nigh two thousand years ago, when Augustus Cæsar ruled the nations, and the gates of the temple of

Janus were shut, we know that a grand dream of coming happiness overspread the world, and inspired Virgil with mysterious presentiments in poetic strains, which have been regarded as prophetic of Christ, or at least marvellous in a poet of heathendom. The golden age of primeval happiness was about to be restored,—the goddess Astræa was to return from the skies; and a Child born of a Virgin was to give to the nations of the earth a reign of ideal happiness. The gates of the Future seemed to be opening upon Paradise—upon a grand Sunrise for humanity; and as the dazzling beams began to shoot in glimpses through the back-rolling doors of the Future, thousands of hearts broke into a song of mysterious hope and joy, such as we still read with wondering and perhaps yearning thoughts in the poems of the Mantuan bard, and in one of the finest odes of Horace. It was no baseless Dream: world-wide hopes rarely are so. Apart from the coming of the Christian Messiah—which extended the pride and joy of human Life to beyond the grave, and seemed to annex to this little planet, Earth, an illimitable Heaven of future and immortal bliss,—the civilised world of that time, of which the bright Mediterranean Sea was the centre and artery, was then reaching its acme of widespread splendour and calm, under the tutelage of imperial Rome. But how many centuries of troubles, of chaos and darkness, supervened, before that bright Dream arose anew and in altered shape in men's hearts, in the penultimate decade of the eighteenth century!

A similar or analogous epoch of bright hope and joyous aspiration pervaded England, and the centres of the Modern world, in 1851. The Great Exhibition—as it still deserves to be called—even in its structure, was the symbol of a new Age. For the first time, a Palace was erected without employing in its structure the rocks or soil of the earth, or the columnar trees of the forest. Previously, the grandest architectural fabrics of human power and genius had been identical in solid substance with the earth itself,—mere elevations and moulding of the materials under man's foot,—and which, were they viewed telescopically from an adjoining planet, might seem but curious, if more or less pleasing, excrescences out of the solid surface of our globe. Like Solomon's Temple on Mount Zion, the fairy-like edifice in Hyde Park arose "noiseless as a Palm-tree." No sound of masons hewing and chiselling the hard stone, or cementing and plastering the humble brick. The fabric seemed to grow, silently and swiftly, under the eyes of the passers-by—alike of curious visitors and of the mighty throng of self-absorbed traffic, ceaselessly rolling by in carriage and omnibus. The intellectual discernment of Paxton beheld the new opportunities and materials which the progress of civilisation at length placed at man's disposal. Glass and iron were the materials of the glittering Palace, which quickly rose aloft in vast proportions in Hyde Park. Glass and iron-work, both of them creations of human intelligence and labour, had now at length become fully subjected to man's control, as agents of

his wants and desires. And while in its structure the Palace repeated the aisles of the Gothic Temple—the grandest outcome of Architecture—it was wholly without their character of solemn grandeur and gloom; for the entire Palace was full of light. Its very walls were translucent to the sunshine,—symboling alike the light of Science, and that sweetest of sunshine, human joy!

The purpose, too, of this novel edifice was eminently symbolic, and expressive of the new times. It was the first international Congress of Peace: a Palace of Art and Industry, to which all nations were invited, and to which all people came—to see, learn, wonder, and enjoy. The products of Nature in all regions of the earth, and the not less abundant productions of human ingenuity and manufacture, filled the Palace with sights of marvel and beauty. Beneath its lofty and glittering roof, by the steam-ship and the railway, were brought together the very ends of the earth. The visitors, in truth, were the World in miniature—men from all climes and all countries: a mighty and motley multitude, such as in Babylon the Great—the grand ancient meeting-place of the East and West, and earliest emporium of the Old World's commerce and productions—had been unseen and undreamt of even in her heyday of fabulous wealth and historic renown.

The opening of the Great Exhibition of 1851 may be taken as the veritable commencement and brilliant inauguration of the Golden Age of Queen Victoria—of a quarter of a century of the highest prosperity

which the world has witnessed, and which our own country especially has enjoyed. The event was a memorable one ; and the day and the spectacle were alike worthy of the occasion. The pen of VICTORIA herself, in a private Diary now happily made public, has given the best description of the famous and beautiful scene :—"The Park presented a wonderful spectacle!—crowds streaming through it, carriages and troops passing, quite like Coronation Day. . . . The day was bright, and all bustle and excitement. The Green Park and Hyde Park were one densely crowded mass of human beings, in the highest good humour and most enthusiastic. I never saw Hyde Park look as it did—as far as the eye could reach." There was the "Queen's weather" on that day,—the proverbial sunshine which her subjects have lovingly noted as accompanying her appearances in public. "A little rain fell just as we started," writes the Royal Diarist ; "but before we came near the Crystal Palace, the sun shone and gleamed on the gigantic edifice, upon which the flags of all nations were floating. . . . The glimpse of the Transept through the iron gates—the waving palms, flowers, statues, myriads of people filling the galleries and seats around—with the flourish of trumpets as we entered, gave us a sensation which I can never forget ; and I felt much moved. . . . The sight as we came near the middle of the Palace was magical—so vast, so glorious, so touching!—one felt, as so many did whom I have since spoken to, filled with devotion,—more so than by any service I have ever heard. The

tremendous cheers, the joy expressed in every face, the immensity of the building, the mixture of palms, flowers, trees, statues, fountains; the organ (with two hundred instruments and six hundred voices, which sounded like nothing), and my beloved Husband the author of this Peace Festival, which united the industry of all nations of the earth,—all this was moving indeed, and it was and is a day to live for ever. God bless my dearest Albert! God bless my dearest country, which has shown itself so great to-day! One felt so grateful to the great God, who seemed to pervade and to bless all!”

The creation of Albert the Good, the Great Exhibition of 1851 reflected or embodied his beneficent humanity, his love for the beauties of Art, for the promotion of industry and commerce, and his earnest desire for the instruction and elevation of “the masses” in his adopted country. Apart from his grander and world-wide purpose of honouring and promoting international Trade, as a moral as well as material boon to mankind at large, Prince Albert desired that the Great Exhibition should be a training-school for our people in Art as applied to manufactures—an element of ever-increasing importance as the world grows in wealth, taste, and luxury, and which had become indispensable if British Manufacture was to maintain its old supremacy, and then still paramount place, in face of the competition of other nations.

This fairy-like Palace in Hyde Park—stored with miracles of Art and Industry, and daily thronged

with motley myriads—passed away, and was meant to pass away, as quickly as a beautiful dream. Its place soon knew it no more; and the verdurous trees once enclosed within its glittering walls have for long stood anew beneath the open canopy of the sky. Yet its site remains worthily marked for future ages, because subsequently chosen as the site of the gorgeous Memorial of its princely patron or Founder—an edifice which, although bizarre to Classic tastes, is notably appropriate in this respect, that it is strikingly an exponent of the new material civilisation of its day. Just as the temple of St Sophia, or the palace of St Mark's, with its glowing marbles and rare pillars brought as the war-spoils of Art from afar, have been held worthily to typify the wide conquests and commerce of Roman Byzantium and of Venice under her Doges; so does the Albert Memorial, in some of its far-brought materials, and notably in its fine and abundant metal-work, and gorgeous display of gold—a shrine of iron, gold, and marbles—express alike the wealth, commerce, and metallurgic skill of the present age of the world, while also suffused with the yellow lustre of the produce of the new Californian and Australian mines, which gave to the times their most peculiar and notably striking complexion.¹

¹ There is (to me) a striking *architectural* fault in the colossal sitting statue of the Prince,—which is correctly proportioned according to nature, and so appears disproportioned to the eye of spectators. The statue would look true only if it were viewed from its own level, and by spectators of similar colossal height. As it is, viewed from below, the knees and feet look absurdly and coarsely large, while the head

Besides the Great Exhibition of 1851, there was another creation of that date which helps to show the peculiar complexion of that most memorable time. Too lovely for annihilation, and movable with an ease impossible to the solid architecture of previous times, the bright translucent fabric of the Exhibition was destined to a noble metempsychosis or transfiguration, giving to the fabric a new and kindred existence. The success of the Exhibition had been remarkable, even beyond the expectations of its sanguine founders. It had yielded a large profit—that surest and most acceptable proof of success in the estimation of the British public. Why, then, should not kindred institutions be equally and lastingly successful? and at the same time they would spread instruction, “sweetness and light,” amid the masses of our people. This was the inspiring motive of the Crystal Palace,—a new use for the slender and graceful fabric which had transiently charmed the world in Hyde Park. The Exhibition had to be closed at a previously fixed date, although its popularity was still at its height: so that there was room

and upper (and retired) half of the body are dwarfed in comparison, looking meanly small. Let any one sit for his photograph, with his legs crossed in front, and one foot projecting in air: and he will be at no loss to understand the defect of which I here speak:—his foot will look monstrously large, and his head small,—the inferior part of the man will be exaggerated at the expense of the superior part. The old Egyptian artists, who were especially architectural, quite understood this matter. In the vast colossal seated figures of Rameses and others, in front of the temples, and which were meant to be seen in front, the length of the thighs is greatly shortened, so that the upper part of the body appears in just proportion to the lower,—nearly on the same plane, and with proper allowance for the difference, or perspective.

for the belief then entertained, that such a Show, in which Beauty and Utility stood side by side, would be attractive and profitable as a permanent institution. Accordingly, removed, transferred, from "the Park" to the sunny wooded crest of the Surrey hills, the work of Paxton's genius reappeared in still more beautiful form as the Crystal Palace of Sydenham.

Only thirty years have passed since then, yet, in its entirety, the pure and lofty original purpose of the Crystal Palace is hardly remembered : but it is needful to recall it here, where we desire to exhibit the peculiar incidents and complexion of the opening years of the new Golden Age. The design of the founders of this People's Palace, still the most beautiful in the whole world, was not merely primarily, but solely, Instruction : not (certainly not so much) to combine instruction with amusement, but to offer instruction by itself in its most attractive forms. In the beautiful grounds purchased for the site, the gardens and ornamental lakes were to present a series of lessons in Geology and Palæontology ; while the interior of the building was to be a Hall of Science, Art, and History. There were to be Egyptian and Assyrian Courts, illustrating the grandest Civilisations of the early world ; a Roman Court and a Pompeian Court, belonging to the true Mediæval period of the world ; and the lovely Moorish Court of the Alhambra, and the Court of the Renaissance, illustrating and reproducing the two widely different (Arabian and Italian) developments of artistic civilisation immediately antecedent to the present Modern

epoch of the world. There were to be Concerts of classical music, elevating the public taste in that most spiritual and widely-popular of all the Fine Arts; exhibitions, too, of Painting and Statuary; together with other exhibitions, of scientific, historical, and ethnographical interest. A small but significant fact shows the high pitch at which the hearts of the founders were then strung. A clause in the original charter prohibited the sale of alcoholic stimulants within the precincts of the Palace.¹ The *profanum vulgus* was required to leave its grosser tastes behind on entering this Temple of Art and Knowledge; and the exciting thrill of Beauty was deemed sufficient stimulus for the worshippers or sauntering idlers in the lovely fane. Indeed, even the proposal to establish taverns in the immediate vicinity of the Palace was at first regarded as a debasing profanity, obnoxious to the *genius loci*. When the Crystal Palace was opened at Sydenham, George Cruikshank (says his biographer), in his rage that it had not been made a Temperance palace, drew some extravagant drawings of the opening ceremony, one of which represented the Archbishop of Canterbury bestowing his blessing upon a public-house!

These two edifices and institutions—the International Exhibition and the Crystal Palace—were truly symbolic of the time: emanations of the bright hopes

¹ So quickly did men descend from the high ideal of that time, that this prohibition not only soon fell into abeyance, but its very existence became forgotten, and was only discovered a few years ago, very much to the astonishment of the parties chiefly concerned.

and lofty expectations which then glorified even the minds of common men, and which, together with their causes, made the central years of the nineteenth century the most joyously memorable which Modern Europe has witnessed. "This will long be remembered," wrote Macaulay in his Diary, "as a singularly happy year of Peace, Plenty, good feeling, innocent pleasure, and national glory of the purest sort." A truly remarkable epoch it was, and yet one which, strangely enough, has even to this day failed to be adequately appreciated by contemporary thought. It was a time when a vision of Utopia, a dream of the mystic Millennium, which not seldom has visited solitary enthusiasts, appeared in transitory glimpse before the eyes of mankind at large. As the vision of the Holy Graal inspired Lancelot of the Lake,—as the rumoured "Green isles of the Blest" drew Madoc and other Cymbrian adventurers into the wastes of the Atlantic,—or as the tales of the golden city of Manoa in the solitudes of Guiana inspired Raleigh and other gallant explorers,—so did the circumstances of those opening years of the Golden Age flush with enthusiasm the common heart of mankind, and raised human nature to a higher level, alike of sentiment and of expectation. Within the quarter of a century which they ushered in, although there was no discovery of a New World to excite the imagination, there were compressed Economic benefits to mankind rivalling those which in the Silver Age had been diffusively spread over at least a century and a half.

No doubt, in 1851-2, the pulse of humanity throbbed at too high a pitch : and we had not long to wait before one part or another of the Dream, so pure and lofty, began to fall away. Ere the transference of the fabric of the Exhibition from Hyde Park to the Surrey hills had been completed, the storm-clouds had gathered in the East ; and soon the sound of Russia's artillery on the Danube began to awake our people, slowly and reluctantly, from the dream of Peace and international brotherhood. Even in much smaller matters we began to see that our sentiments, noble and enthusiastic, had been too high-pitched, and that human nature could not be lifted by a stroke to the high level which had seemed so attainable in those years of glamour. And, trivial though it may seem, no better illustration of the change need be given than the failure of the high original design of the Palace at Sydenham ; where the demand for Amusement became supreme, and where, even with the help of fireworks and Blondinism, and with much of its scientific plan never carried out,—nay, even with no small part of it turned into a commercial bazaar—that most lovely Palace of Art and Beauty has never proved sufficiently attractive to the masses (for whom it was specially designed) so as to prove a “paying concern.”

Nevertheless, although Enthusiasm then carried men too far—as naturally happens when the Imagination of the masses is strikingly aroused and excited—the joyous epoch of hope and high aspirations in 1851 was at least as well founded as on any of the

previous epochs in History when (as we have said), as a natural though rare phenomenon, a beautiful Dream flushes the heart of the nations, and the vision of a coming earthly Millennium gleams for a while before the mind's eye of ever-yearning humanity. Yet it was the hopes of the multitude, the expectations of the common throng, rather than the aspirations and anticipations of the high and learned classes, which were destined to obtain realisation, thereby rendering happy and prosperous a whole subsequent generation. It was the new Gold-Mines alone which have fulfilled the high expectations created by their discovery, despite the opposite prognostications of the scientific world generally, especially of the Geologists and Economists.

It is in truth a remarkable incident that the expectations of the uneducated masses should in this memorable instance have prevailed over those of the educated classes and their leaders or teachers, whether in politics or in economical science. Wars—nay, a new epoch and series of wars, have come, and are far from being yet over. The great Republic of North America, which was at that time so widely belauded as the model of a happy and harmonious State, became convulsed by a frightful Civil War,—from the depressing effects of which it has only recently emerged, entering anew upon that wide and safe career of material prosperity of which its geographical circumstances render it an indefeasible heir. The age even of military conquests is not passed. Might still makes Right in international affairs ; and

instead of the Dream of Peace of 1851, in which the swords were to be turned into ploughshares, and men were to practise the arts of war no more, military science is the paramount study of the present time,—so much so that a new game (the Kriegspiel) has been invented to enable men to study the stern work of War even amid the amusements of Peace. Never before, indeed, has Civilisation assumed so military an aspect. Nations live in suits of mail; and Europe is a series of camps, where the flower of each country's manhood is trained in the arts of war. Nay more: what is to be said of the internal warfare waged against civilised Society itself? Perhaps it may ere long be recognised that the material prosperity begot or enhanced by the Gold-mines served to suspend or retard the further development of the "social revolution," which first took shape in the *nouvelles couches sociales* and the *ateliers nationaux* of Paris in 1848. What were the red fires of the Parisian Commune in 1871 but a beacon heralding a deadly onset upon Civilisation, not from an invading host of Barbarians from afar—such as again and again has overthrown the civilisations of the world, but from an uprising of swarming foes in the very heart of Civilisation. Dread as are the international wars which still seem to loom in the distance, what are these to the convulsions of blood and fire with which Society, both in its institutions and in its classes, is not less visibly menaced? The Communism of France, the Socialism of Germany, Italy, and Spain, the Nihilism of Russia, and

Atheism and Materialism everywhere : what are these but the direst foes of Modern Civilisation : whose lowering front is as ominous of coming disaster as were the gathering masses of the Northern Barbarians on the frontiers of the mighty empire and civilisation of Rome. And if European Society were thus to perish as by suicide, is it not merely possible but probable that this collapse might be attended by another flood of racial Barbarism ; that the hardy hordes of the Steppes would flock eagerly to the spoil ; and that—incredible as it has long been believed—an irruption of Barbarians (not uninvoked, perhaps, by the party of Order) should signalise the demise of the present form of Modern Civilisation, just as has befallen all its predecessors in the history of the world.

So widely different, in the main, is the present condition of the world from the vision which presented itself to many of the best and wisest of men in the heyday of Hope which marked the opening of the second half of the nineteenth century ! Nevertheless, thanks to the Gold-Mines (not exclusively, it is true, but most notably), the interval between Then and Now has been marked by an epoch of singular prosperity and general happiness. And the epoch has been alike so brilliant and so compact or well-defined, that it will stand out and be marked as a bright spot in the world's history for ages, even despite the cataclysmal changes which the Future may have in store for the present order of affairs, both social and national. Even were the proverbial

New Zealander—whether a civilised Maorie or a Briton of the South visiting in pilgrimage the old Home of his race—to stand upon the broken arches of London Bridge, gazing upon the ruins or dwarfed proportions of once mighty London,—the Golden Age which the present generation have witnessed would rise in his thoughts as the brightest heyday, as well as setting glory, of the Modern period of human civilisation : of which Europe has been the centre, and of which latterly the British Isles—this mere nook amid the wild Northern seas—have been the heart and flower.

The present, which we call the Modern, is truly the Mediæval period of Man's career ; which began with the birth of Europe (previously the Dark Continent) in the brilliant civilisations of Greece and Rome,—a period marked by communion between the nations and uniformity of civilisation, strikingly in contrast with the grand isolated civilisations of the prior Primeval time. In like manner, the next stage of humanity—to which, as usual, the world will doubtless be brought by a terrible cataclysm—will be an epoch of complete internationalism, and of a grand yet more or less monotonous uniformity ; an entirely new Civilisation, except in so far as it may reproduce the principles which for the last eight centuries have characterised the Mongolian civilisation of China, —the oldest, and the sole one which, by unbroken existence, exhibits the natural tendency of human ideas and beliefs in a civilised community which fully attains to old age ; and in whose progress and

changes there appears a wonderful analogy between the Life of nations, or of mankind at large, and that of the individual. Imagination, Religion, and Fine Art die out ; and in place of divine aspirations, as of youth, come the material enjoyments of the day and hour. Earth becomes shorn of its Heaven,—human life, of its future beyond the grave. There is no God, and Man has no ideal of perfection beyond himself. There is no longer a consoling compensation for the unjust sufferings of the present life in the rewards of a future one. The West goes for knowledge to the old East ; proud Europe follows smilingly in the wake of the Mongolian Race. And abjuring Christianity, Religion, and with failing Imagination, the European Aryans already begin to take up the cry from Japan—“ O Man ! despise not this world,—for you have no other ! ”

CHAPTER II.

THE GREAT EMIGRATION.—GENERAL EFFECTS OF THE GOLD-DISCOVERIES UPON COMMERCE.

SUCH was the outburst of Hope among mankind which attended the discovery of the New Gold-mines. The first practical consequence of the discovery, and of the enthusiasm which it excited, was the Great Emigration—a movement of mankind on a scale of magnitude such as the world had never previously beheld, and conducted under circumstances of great novelty and of picturesque or romantic aspect. The first great phenomenon of the new Golden Age was the transfer of large masses of mankind from their old seats to new ones,—from the centres of civilisation to the ends and solitudes of the globe: a vast and sudden spread of civilised mankind over the earth, making deserts and waste places to bloom, cities to rise amid the solitudes, and seas, whose virgin waters had hardly been stirred by a single prow, to grow white with the sails of golden argosies.

The Emigration was rendered peculiarly remark-

able by the remoteness of the new lands thus sought after, and by the consequent magnitude of migratory operations by which this Exodus from the old seats of civilisation was carried into effect.

The countries where the new Gold-beds were discovered lie at the furthest ends of the earth,—regions the most secluded, and furthest remote from the seats of civilisation and the dense centres of population. The region of California seemed the last in the world that would be peopled by civilised men. Of all spots on the globe it lay the farthest apart from the highways of commerce and enterprise,—facing, across the northern Pacific, the dreary isolated wastes of “Oonalaska’s shore.” Not a road to California was to be found on the map of the traveller, not a route to it was laid down in the charts of the mariner: the deserts and woods and mountain-ranges by land, the rocks and shoals and currents by sea, were known to not one in ten millions of earth’s inhabitants. The Pacific Ocean rolled between it and Asia; the snow-capped chain of the Rocky Mountains, impassable save in a few places, and only at certain seasons—the deserts of the Salt Lake, and the pathless wastes of the prairies, traversed by hostile tribes of Indians—cut it off from communication with the eastern States of America. In this secluded region, extending some five hundred miles along the shores of the Pacific, and sloping from the margin of the sea to the summit of the Snowy Range, a few stragglers were the only signs of human life that appeared amid a primeval solitude. Six years

before, when the French frigate *Venus* (in the course of its voyage round the world) put into the port of Monterey, then the chief town of California, they found the place "composed of forty or fifty white-washed habitations—veritable huts, roofed only with rushes and boughs of trees. The frigate was in want of biscuit, and the country had to be laid under contribution; they went even to distant farms in search of flour, and, after all, could only procure an imperfect revictualment."¹

All at once gold was discovered—gold in abundance, gold everywhere. In the beds of the rivers, in the sands of the hill-torrents, in the seams of the rocks, the precious ore appeared—nay, the very soil seemed impregnated with the glittering dust: and forthwith settlers came hurtling thither like clouds of locusts. Every wind of heaven seemed to blow them to the golden land. The love of gold soon peopled the solitude; the sparkle of the precious ore drew myriads from afar. Within eighteen months a hundred thousand men arrived from the other side of America; nine thousand waggons, bearing five times that number of persons, came through the passes of the Rocky Mountains, and four thousand immigrants came on horseback by the same route. Crowds poured in eager haste across the Isthmus of Panama,—converting the neck of the New World, for the first time, into a highway between the two great oceans of the globe. Others made a sea-voyage of 17,000 miles round Cape Horn, intrusting themselves for the

¹ *Revue des Deux Mondes*, 1843.

stormy passage to leaky and shattered barks, resembling that in which Columbus made his last voyage from America to Spain. From the ships, they beheld a land without fruits, without cities, almost without inhabitants; but gold was in the mountains that rose in the distance; and, heedless of hunger and thirst, heat and cold, raiment and lodging, they plunged eagerly into solitudes where the wolf and the buffalo, the squirrel and the bear, had lived undisturbed since the Deluge. What an assemblage was there gathered together! Men from all quarters of the globe—of every kindred and tongue, of every hue and dress and feature. Emigrants from every country of Europe—English, German, Swiss, Pole, French, Spaniard—worked side by side with the aboriginal Indians and Anglo-Saxon intruders of northern America, and with the native Chilians and half-breeds of its southern portion. The Australian joined them from his Antarctic continent; the Malay and Polynesian from the isles of the Pacific; and even the Chinaman came forth, like an anchorite from his cell, to join in this varied mass of golden speculators. Such a concourse of human tribes the world never before witnessed. Through the once solitary channel of the Golden Gate, clusters of sails began to enter the land-locked bay, on whose shores was rising the future capital of the region; and, like the magic seed of the Indian juggler, which grows, blossoms, and bears fruit while the spectators are looking on, San Francisco seemed to accomplish in a day the growth of half a century.

Australia was, if possible, a still more isolated region of the globe, and much more remote from the centres of modern civilisation. It is the New World of the Southern Ocean—an island-continent whose existence remained undreamt of for generations after Columbus had lighted upon America beyond the Atlantic. The New World of America had been stumbled upon, discovered by chance, when Columbus was seeking a new sea-route to the Indies and Cathay; but the new and much later found island-continent of the South lay far apart from the routes or highways of Commerce—isolated amid the wastes of the Southern seas. Unlike the New World of Columbus, the region discovered by Cook and Van Diemen had never been the site of civilised States; and the whole aspect of Australia, and of the human, animal, and even vegetable life of the region, was singularly meagre and unattractive. Thus, not only was a far longer journey than that to America, and in a comparatively untraversed route, requisite for emigrants to Australia, but the country which they were choosing for their new home was singularly destitute of attractions. Before 1850, men went thither for the sake merely of breeding sheep upon its wide monotonous plains; and, had no other attraction been discovered, the island-continent of the South would have remained until now a slow-moving cityless country of pastoral settlers,—possibly (from lack of the brisk sea-trade now established) still shearing their flocks and boiling down their sheep and cattle, as the only

means of utilising their surplus produce, in exchange for the more or less indispensable commodities of other countries. But the discovery of Gold at once changed the scene. Settlers and ships came thick and fast; new lines of Commerce tracked the deep; already the European race is making a new home at the Antipodes; and a brilliant future has opened upon that Southern continent, of whose greatness we only see the beginning.

The bulk of this vast Emigration came from Europe, the Heart of modern civilisation, most fully possessed of the means and appliances for Migration. Europe, also, compared to the world at large, is like the "Ear of Dionysus," wherein men hear most quickly and clearly all that is passing on the face of the globe. But the gold-inspired movement of the peoples extended to every part of the world where the European race had settled, and far beyond even that. A great internal migration occurred within the American Continent,—from Mexico and the Pacific coast of the southern half of the Continent,—and including as its chief portion a displacement and transference of population from the Atlantic provinces, and especially from the populous north-eastern region of the United States,—a migration to California which left a void in the American labour-market at the point nearest to our own continent, thereby creating an opening for no small portion of the emigrants from Europe, and especially the Irish.

The movement of population excited by the Gold-

discoveries was really world-wide. Even indolent barbarism, as in the sunny isles of the Pacific, or the untamed savagery of the American Indians, yielded to the magic attraction of Gold, in proportion to their proximity to the gold-fields and their (more or less inadequate) means of conveying themselves thither. Indeed it was the lonely and lovely isles of the Pacific—where human existence is a holiday, rather than the stern game that it usually is—which supplied the earliest immigrants to golden California. The simple Kanakas and gentle Otaheitans were stirred from their indolent and sunny life of Nature to join in the race for gold. The same passion extended into immobile China, with its densest and oldest of civilised populations. This Emigration from China was, in some respects, the most remarkable of all. Despising all other nations as mere barbarians, and finding in his own country the best of all possible worlds, and especially proud of its immemorial civilisation, never before had the Chinaman dreamt of voluntary expatriation. Frightfully hard as are the conditions of life among the lower classes in that densely packed country, its people had felt towards the outer world what Achilles felt in regard to the pale joys of the Lower World, that a day in China was worth countless years in the lands of the Barbarian. And so indeed the Chinaman thinks still: but the attraction of gold for the first time drew him forth from his own country and the loved society of his own people. Moreover this exodus from China has been an important

one even in point of numbers, both in California and Australia; and portended a great outpouring of that immemorially secluded people, such as already creates a jealous disquietude in adjacent regions. As regards both of the gold-countries, the immigration from the Celestial Empire has been far greater than can be inferred from the number of Chinese resident in those countries at any given time: for, unlike the immigrants of other nationality, the Chinese have hitherto been merely like birds of passage, working only for a season in the gold-countries, and thereafter returning to their native land. But even as temporary settlers, one generation returning home and another succeeding it, the immigration from China to California has become so large as to constitute about one-fourth of the population of that country,—competing, too, so successfully with the Whites both in commerce and in the labour-market, that many branches of trade and industry are now completely in the hands of the industrious and life-experienced Mongolians.

Such was the flood of Emigration and of hardy enterprise set in motion by the Gold-discoveries. While affecting almost every part of Europe and North America, it more or less stirred the population on the seaboard of the old world of Asia, as well as of the still uncivilised archipelago of the Pacific Ocean. Population became loosened from its old seats, and flowed in a variety of channels across the face of the earth,—southwards to the Antipodes, and both from west and east to the Pacific seaboard of

North America. Never before had such a movement of peoples occurred within the pale of Civilisation,—nor even in the dim prehistoric times. In numbers, this Exodus recalled to memory, yet exceeded in magnitude, the ancient migrations of the barbarous hordes of the Northern regions of the Old World, who, fleeing in mass from enemies, or moving as entire tribes or peoples in search of bare subsistence and fresh pasture-lands, used to rove to and fro in the dark world lying north of the Caucasus and the Alps, from the Wall of China to the Atlantic Ocean, and who finally forced their way through the Roman frontier into the wealthy Mediterranean world,—driven from their old seats under the pressure of Want, and attracted southward by the sight or rumours of Wealth. It was substantially similar influences which set in motion the great Modern Migration. It was Wealth, in its most alluring form of Gold, that attracted the vast waves of migratory population to remote California and Australia,—countries then but imperfectly known even to geographers, and previously hardly known by name to the myriads who so eagerly and confidently flocked to them, over vast distances both by land and sea. Nor, as has been shown, was the impulse of Want, or hardship at home, absent from the movement; and although to the emigrants of most nations the Want was merely relative to the comforts of modern civilisation, to the Irish emigrants at least it was as dire an impetus as had ever operated upon the roving hordes of the old Barbarians.

On the other hand, in several respects there was a mighty difference, indeed a striking contrast, between these old migrations and this modern movement of population. Its very course and goal were different. In the first place—most memorable difference!—this modern migration took place not to, but from, the seats of old and wealthy civilisation. It was an Exodus from the very heart or centres of old Society, and a rushing forth into the solitudes of the world. A Pauperism almost equalling that of Barbarism had grown up within the bosom of Civilisation; and men in myriads now rushed forth into the waste places of the earth, after Gold, as confidently and ravenously as their rude ancestors had sought for wealth in the great cities and centres of population in the ancient world. Hosts of mankind went as boldly and adventurously to gather the dragon-guarded gold of California and Australia—guarded, to wit, by the dragons of hardship, want, and disease—as the Scythians, Gauls, Goths, and Huns of early times had rushed from the Steppes of the North to the capture of Nineveh, Delphi, and Rome.

In another respect, also, the Golden Exodus was peculiar. In its operation, it was not only stamped by the character of its own day—the middle of the nineteenth century,—but it could not possibly have occurred, in anything like its actual magnitude, at an earlier period of the world. Whereas the Barbarian migrations had proceeded entirely by land, traversing continents, disturbing or destroying the

settled face of the earth—making their way, in fact, only by exterminating or cleaving a passage through the settled peoples in their path,—the new migrations took place chiefly, almost entirely, by sea, and by appliances which only an advanced civilisation could have placed at their disposal. Accordingly, these migrating hosts disturbed not the settlements of their brethren or of other peoples—nay, left not even a disturbing trace of their passage across the world's face—mainly traversing the sea in a myriad ships, which left no furrow on the ever-young and unwrinkled face of Ocean.

Next in point of time to the impulse which they gave to Emigration, and first in point of importance, the peculiar benefit arising to the world from the Gold-discoveries was that they gave a vast extension to Commerce. California and Australia, instead of desert places, wellnigh devoid of population and wholly devoid of civilisation, became countries which trade largely with the rest of the world; while the exported produce of the new gold-mines enabled the nations of the world to extend their commerce with one another,—especially with countries like India and China, which used to take little foreign goods, and with which no large trade is possible unless the other nations have an abundance of the precious metals in which to discharge the inevitable trade-balances.

Consider then, what Commerce is, and the benefits which mankind derive from its expansion. Like Money, Commerce produces nothing, yet vastly

tends to increase Production. Commerce does not add to the produce of the earth, nor to the commodities manufactured out of that produce; but it promotes production of all kinds, both natural and manufactured, by opening new markets or a new demand for that produce,—by getting for it more customers, more competing buyers, and consequently a higher price,—an enhancement of its value in exchange. So long as a people have no foreign Commerce, no trade with other countries, they have no motive to produce more goods of any kind than suffices for their own domestic wants: any excess beyond that point of production would glut the market, lowering prices, or the wages of industry, to an unremunerative scale. Accordingly, in such countries, the limits of industry are soon reached, and the temptation to idleness is overpowering. But the case is wholly altered, and an impetus to further industry and increased production is at once created, when the surplus produce or commodities of a country can be profitably disposed of to other countries or communities of mankind. Commerce does this: and thus, as Commerce extends, each country finds the whole world a market for its goods, so that there is hardly a limit to profitable production. There is hardly any kind of goods for which there is not a profitable demand in some part of the world; and each generation beholds some previously barbarous or secluded population gradually rising into commercial civilisation. And so the field or area of Commerce, the great market for the

produce of the earth and the productions of human labour, goes on extending from century to century, gradually tending to a world-wide completion, and proportionately benefiting the condition of mankind at large.

The principle of Commerce, or of international trade and exchange, is simply this,—that goods which bring a higher price in other countries than at home are sent abroad. An increased trade with France, for example, means that we import more of her productions, say wines or silk, and send in exchange a larger quantity of our own produce, say iron and cotton manufactures. An increased commerce with India and China means that we import a larger quantity of the produce of those countries, either in the form of food and luxuries or the raw material of textile manufactures—say, rice, tea, and cotton; while we send in return a quantity of our manufactured goods, together with a large portion of the precious metals. The primary benefit which such transactions, or Commerce, confers upon mankind is that each country gets a portion of its produce exchanged for commodities of which it has a greater need or holds in higher value,—thereby adding to the comforts of life, while each exchange of this kind (normally, at least) gives a profit to both of the parties who make it. Further, every extension of Commerce, or of international exchange, implies or tends to create more production—along with a corresponding increase of industry, or of profitable employment for the population of the intertrading

countries. And an increase of employment, *i.e.* of profitable industry, is equivalent to (1) a bettering of the condition of the industrious classes in those countries; and (2) to a draft upon the mass of idleness and pauperism, or unproductive energy, which every community more or less contains. In short, an increase of Commerce means more profits for our merchants and manufacturers (in some countries, also, for cultivators of the soil), together with more wages and a general bettering of the condition of our population, and of the population of every country which is included within the sphere or area of these operations. It also means, of course, increased intercommunication among the nations of the earth; and by establishing among them a mutual knowledge and bonds of mutual interest, Commerce prepares the way for the coming of better times upon the earth—morally not less than materially—than the world has previously known.

No other branch of industry could have produced these various and valuable effects to the same extent as that opened up by the discovery of the gold-mines of California and Australia. It is evident from what has occurred that gold has been more needed by the world at large—it obtained a wider and better market—than any other kind of produce. In itself, as a metal, gold is perhaps less useful or desired than most other commodities; but as Money it is requisite for the exchange of them all, and thus it has been more needed and widely valued than any other commodity of human labour. Hence, the

labour of the Emigrants proved more profitably employed in the gold-countries than it would have done at home, in the old seats of civilisation. The difference is in effect—to use the common simile—as if a very rich soil had suddenly taken the place of a poor one. Moreover, the novelty, excitement, and profitableness of the trade of gold-seeking tempted not a few of the idle hands to emigrate and to become industrious: while the drafting away of many myriads of industrious hands from the labour-market in the old countries tempted into activity the indolent portion of the community at home, and gave new or better opportunities for breadwinning and money-making to weaker men, who were becoming thrust aside in the stern race of life, and who, but for this opening, might have remained or become a burden upon the community, as well as a source of difficulty to the State.

Such were the happy effects of the Emigration, and of the new Commerce, created by the gold-discoveries. The practical connection between the New Gold and the New Commerce is one of the most interesting and important subjects which have to be dealt with in any history of the last thirty years; and it will form a theme of practical and scientific consideration in subsequent chapters of this work. Meanwhile, consider for a moment the beneficent operation of Commerce, or international Trade, in general, upon the progress of the world.

Where Commerce goes, influence follows, and Barbarism is gradually displaced by the civilisation of the trading peoples. It is true, Commerce does not

always appear as a benefactor. With equal indifference, it conveys the food and clothing which preserve life, and the weapons and munitions of war which destroy it. The first result of the contact between civilisation and barbarism is usually war. Nay, nations even fight for commerce—for new markets. If a people will not accept the blessings of Trade, we too often force these upon them at the point of the bayonet or at the mouth of the cannon. This is indefensible,—it is a reproach to civilisation: but it has been natural. There is no unmixed good,—but evil itself is made to develop good. The action of self-interest is the regulating force of human progress; and self-interest—low motive though it may seem to generous philanthropists—when rightly understood, through the sifting experience of life, ever propels us in the end towards the good. Through Commerce, Peace wins her chief triumphs, and the operations of self-interest can accomplish more than all the moralisings of Sages or the preachings of philanthropy. Do not we ourselves feel how firmly the golden meshes of Trade have wound themselves round the spirit, and curbed the high temper, of the nation? Unfelt, perhaps, or unnoticed in ordinary times, it is when England in anger raises her right arm to strike that she becomes suddenly sensible of the golden meshes which have gradually encircled her. We are bound over to peace by chains that are not unpleasant to us. This, too, may have its bad side,—but that is a question beyond our subject. Let it suffice that other nations also, our neighbours and rivals and possible enemies,

are gradually coming under the same golden bondage, and that, the more potent the bondage becomes, the less need will there be for "a policeman" in Europe or costly armaments throughout the world.

During the new Golden Age, Commerce has overspread the whole world. It widens and still pours along like a rising flood—whose outer edges indeed are gross with sand, and whose waves as they advance act more or less destructively, yet fertilise the soil and produce new and better forms of growth,—making the world more beautiful, and man more happy. In the old religion of Persia, the disciples of the Good Spirit, Ormuzd, were bound to wage ceaseless war against the works of the evil Ahriman,—not only by crusading against alien religions, but by warring against all that obstructs the beauty and fertility of the earth. To keep clear and pure the water-courses, to plant fruit-trees, to extirpate weeds, to extend cultivation,—these were parts of that old religion, and were regarded as not the least worthy service which man could render to the Maker of the worlds. We no longer call such acts Religion: yet is it not a carrying out of the beneficent work of Providence in the world—a work which is left to human hands to accomplish—which must be done by man or not at all? And thus, so regarded, Commerce has a religion of its own, of a very practical kind,—invisible in, and usually unfelt by, her votaries, yet appearing in the results of their labours, and powerfully aiding the culture and comforts of mankind.

CHAPTER III.

POSITION OF GREAT BRITAIN : AND FIRST EFFECTS
ON IT OF THE GOLD-DISCOVERIES.

GREAT BRITAIN, the *ultima Thule* of Imperial Rome—a couple of small isles in the Atlantic Ocean, lying off the north-western corner of the European continent, and almost the last part of the continent to be reached first by Roman and then by Papal civilisation—a country long lagging behind the rest of Europe alike in science and in the humanities of social life,—at the time of which we write had at length, and by a more or less sudden bound, taken its place in the van of Commerce, and also, we may say, of national power and political influence. Centuries before then, Britain had become renowned for the martial qualities of its people. Under our royal Edwards and Henries, little England was within an ace of permanently annexing France, and the English troops marched and fought with triumph from Calais to Bordeaux. In later times, under the military genius of Marlborough, the Islanders had interposed anew in Continental warfare, and had

upheld European freedom by overthrowing the armies and checking the power of the Grande Monarque of France. A still wider renown had attached to England upon the high seas, where her seamen had brilliantly fought and daringly explored from the days of Cabot, to Drake and Dampier, and thence on to Cook, Nelson, and Parry. At the beginning of the century, too, Great Britain had again interposed to rescue the freedom of the Continent, as well as to maintain her own; and the applause which had hailed the victories of Nelson and Wellington, and the admiring gratitude of Europe for the crowning triumph at Waterloo, had hardly died away in that year of grace and hope, 1851, which may be taken as the true beginning of the New Golden Age.

The great European war of 1792-1815 had in truth consummated the commercial not less than the political supremacy of Great Britain. William Pitt, the greatest Minister whom England has produced, was pre-eminently impressed with the importance of building up the commercial and industrial prosperity of his country. Forced into war in self-defence and for self-preservation, he sought to compensate the nation for the costs of war by opening new fields of commerce, new markets for British industry; thereby adding to the national income and maintaining the national prosperity during the Great War, while creating permanently a Colonial Empire vaster and more splendid than any the world had ever beheld. This commercial war-policy,

by employing a portion of England's forces at a distance from the heart of the contest, doubtless served to protract the duration and increase the costs of the War—and at moments even endangered its success; but the high ambition of Pitt was fully realised. Reversing the common adage, William Pitt—who in heart and soul was a lover of peace and of the triumphs of common industry—may be said to have prepared for Peace while carrying on War. Under his brilliant father, the bold and warlike Chatham, a splendid beginning had been made of our present Colonial Empire; but in 1815, after the additions made to it during the Great War, the British Colonies were so widespread, so various, and so valuable—and even after the profuse abandonment of Java and other captured settlements—that their mere possession wellnigh gave to the Parent State the supremacy of the seas and the leadership of Commerce. In 1850, all India was ours: the imperial policy of Dalhousie had extended our frontiers to the Indus and the Himalayas. The Canadas had long been ours, and were already dreamily looking forward to the time when, stretching across Northern America to the Pacific, they would join hands and partnership with British Columbia. Jamaica and some others of the West Indian Islands—once as valuable as gold-mines, but then sadly shorn of their productiveness by the too hasty or ill-managed abolition of Negro slavery—furnished trade and harbours for British shipping in the Gulf of Mexico; while in the Southern seas,

New Zealand, Australia, and Tasmania, together with the Cape of Good Hope, had become new fields for British energy and colonisation.

It was a remarkable position which Great Britain then occupied in the world ; and, whatever may be her ultimate destinies, under the new Age then beginning that position became more remarkable still. A little spot, a mere speck amidst the Northern Ocean, hardly discernible by the schoolboy as he seeks for it on his globe, and which he may inadvertently cover and hide with his finger-point as he turns round the coloured sphere, the British Islands are nevertheless the heart of the Modern World, the centre to which the thoughts and acts of men most generally tend, and to and from which the streams of material life are ever flowing. If we draw on a map the great routes of commerce, whether by land or by sea, it will be seen what a large proportion of them, especially the sea-routes, converge to the shores of these little Islands of the North. It was once a proverb, that "all roads lead to Rome ;" and England, commercially, now holds in the world at large the same predominant position which the Eternal City held in the lesser area of the Roman Empire. Our Islands are the chief goal of the highways of commerce. Under orders from London, caravans, with their long strings of laden camels and horses, are ceaselessly crossing the plains and deserts of Asia,—railway-trains, drawn by the powerful fire-car, rush across Europe and America with their freight of goods,—and myriads of ships

bring to us from all parts of the world the staple supplies of our food and of our industry.

For nearly a century past, it has been said that "the sun never sets upon the dominions of England:" in one part or other of the globe his rays still shine upon the red-cross banner of St George. But is not England herself a sun—diffusing civilisation, while adding to the material comforts of mankind? Our little Isle furnishes profitable employment, even the means of existence, to millions of people in the uttermost parts of the earth. The Chinaman in his tea-plantations and mulberry-gardens,—the Hindoo in his rice and cotton fields,—the poor Indian miner on the Andes, and the hardier and better-paid workers on the gold-beds of California and Australia,—the Gaucho as he follows his herds on the Pampas,—even the Negro of Africa, and the Polynesian of the far and fair islands of the Pacific—are stirred to industry and kept in comfort by the employment which we in our little island give to them. If—as has been in the æons of the Past—the British Isles were to sink until they were submerged anew beneath the surrounding seas, their disappearance would be like the setting of a sun, and the world of commerce would suffer an eclipse and relapse into temporary chaos.

At the time of the Gold-discoveries, the British Isles (as it seems to me) were nearing, and had well-nigh reached, a stage of world-eminence which future History will probably recognise as the natural zenith of their high career. For fourscore years

the British nation had been engaged in a rapid and marvellous development of their industrial powers and resources. Until the latter half of last century, Great Britain was still unnoted in the world either in commerce or manufacturing power. The starting-point of her subsequent marvellous progress was the construction of the English Canals. It is a wellnigh forgotten fact that there was a Canal-Mania nearly a century before the Railway-Mania. England became covered by a network of canals, which not only multiplied but cheapened conveyance by much more than one-half, facilitating both production and trade, and proportionately increasing the profits of the industrious classes. Next came the invention of the mule, the jenny, and the cotton-gin, wellnigh perfecting textile production, supplanting rude hand-labour, and multiplying human power by the agency of machinery. Then, too, began the utilisation of the vast mineral resources of the country, its coal and iron; while the steam-engine not only, for the first time, rendered workable the deep-sunk coal-beds, but became the main motive power of our textile and all other kinds of machinery. And perhaps most important of all, the potent appliances of Banking and Paper Money, first largely and systematically established and utilised in the United Kingdom, gave our people a start over all their compeers, and impelled our country on a career of industrial and commercial prosperity at a time when Europe was still fettered by the then growing inadequacy of metallic money.

During the present century, the world had entered upon the Age of those twin-giants, Coal and Iron,—agents which latterly, with the introduction of Steam-navigation, had become as necessary to commercial eminence as previously they had become indispensable in every department of machinery and manufacture. And in 1850 the British Isles possessed wellnigh a monopoly of those potent minerals. Europe was almost wholly dependent upon our Isles for coal and iron. Even in America, where those minerals exist in far larger quantity (although in much less favourable juxtaposition) than in Great Britain, the people of the United States were still too absorbed with the magnificent produce of their soil to engage in the more arduous and less immediately profitable work of developing their treasure-stores of those commonest but most useful of minerals; or, as still, to engage largely in the but poorly-paying carrying-trade on the seas, in which England still remains paramount.

Thus Great Britain, at the close of the first half of the present century, had already developed all the peculiar sources of her industrial and commercial power; and alike in canals and railways, in coal and iron, in textile machinery, and in steam-navigation, she was at her furthest point in advance of the rest of the world. One thing more was needed to give fullest play to the whole enginery of Commerce, and to permit International Trade to assume its full magnitude, and engage freely in its widest opera-

tions,—namely, an abundant supply of Money in its international form of the precious metals. Great Britain had by this time wellnigh¹ completed her marvellous system of Monetary Economy—by banking, cheques, and paper-money—which had given to this country its first great start in advance of the rest of the world in industrial and financial enterprise, yet which was inadequately applicable to the support of Foreign (*i.e.* international) Trade. But the needful supply of international money came with the Gold-discoveries,—giving to British Commerce a new expansion, and quickly leading to the crowning zenith of England's greatness among the nations.

As the British Isles had thus become the peculiar seat and centre of commercial and manufacturing enterprise, it was, naturally, upon their condition that the Gold-discoveries produced their earliest notable effects.

It was in 1850 that the Exodus began in force from the British Isles, which contributed from their own population fully three-fourths of the emigrants from the Old World, and also through whose sea-ports nearly the whole of the emigrants from the rest of Europe passed on their way to the Gold-countries. Averse to migration as the Continental nations then were, the Revolutionary wars and

¹ The entering of the Bank of England into the Bankers' Clearing House, in 1864, has been the only further economy in our monetary system.

troubles of 1848-9 had produced much suffering and commercial depression; and thus the opening presented by the new gold-fields was more largely availed of by them than would otherwise have been the case; while, from lack of sea-communication from their own shores, the German, Dutch, and French emigrants as a rule came over to this country in order to take their passage across the world in British ships.

When the news arrived that gold-fields had also been found in Australia, the Exodus reached its height. In 1852 the emigrants from our shores amounted to 369,000;—and thus, for the first and only time in our history, the extent of the emigration was so great as to exceed the entire normal addition to the population from the excess of births over deaths. The growth of our population temporarily stood still, in order that California and Australia might be peopled. In the four years when this Exodus was at its height, the number of emigrants from our shores amounted to 1,356,000—a population exceeding that of all Scotland at the time of the Union.

To understand the full importance of this Exodus, it must be remembered that for several years previously the emigration had been exceptionally large. In the unusually prosperous year 1843 the number of emigrants was only 57,000; but in three years afterwards the number was more than doubled. In the two years 1847-8, under the pressure of the

Irish famine and the collapse of the Railway-mania, the annual average was a quarter of a million ; and in 1849 the number of emigrants was no less than 300,000. This was really an Exodus of Despair ; what followed was an Exodus of Hope. The change came swiftly, and the turning-point was in 1850, when the emigration fell to 281,000 ; thereafter swelling to 340,000, or upwards of a third of a million annually, for the next four years, under the influence of the Gold-discoveries.

Although the Anglo-Saxon race, owing to its self-reliant and adventurous spirit, has been in modern times the great colonisers of the world, it was the Celtic element of our population which supplied by far the larger portion of the emigrants in the first years of the golden Exodus. This was a natural consequence of the great Famine which befell Ireland, owing to the failure of the potato-crop, in 1847-8 ; the effects of which, combined with the commercial depression throughout the whole kingdom, remained in operation until the commencement of the epoch of prosperity ushered in and produced by the discovery of the gold-mines. Nearly a million of people had fled from Ireland during the five years ending with 1850 ; and although Ireland rapidly benefited from the new epoch of prosperity, for several years thereafter the emigration from Ireland was not merely vastly in excess of that from England and Scotland in proportion to their population, but until 1854 it was in actual excess of that from all the other parts of the kingdom. The nationality of the emigrants

to the gold-fields from the British Isles is shown in the following table :—

	Irish.	English and Scotch.	Total.
1851, .	254,000	82,000	336,000
1852, .	224,000	145,000	369,000
1853, .	192,000	136,000	328,000
1854, .	150,000	173,000	323,000

America, and especially the United States, was then, as it has ever since been, the Land of Promise to the Irish people. This, no doubt, has partly been owing to the hatred or dislike on their part to British rule; but chiefly, I think, it has been owing simply to the fact that it was to the United States that the great flood of Irish emigration took place in the years of the Famine. Canada would soon have been overflooded by such a tide of immigrants; whereas the United States offered a far wider field, alike in their extensive and ill-supplied labour-market, and in the vast unoccupied and fertile regions of the interior, where at that time little farms could be obtained in freehold, or absolute ownership, at a price little more than nominal. This first flight of emigrants to a great extent influenced the subsequent exodus from Ireland. The Irish, like the Celtic race generally, are an adhesive people: they like to cling together, rather than to settle and fight their way among strangers. Hence the Exodus of Hope, from Ireland, took the same course as the prior Exodus of Despair had done. Moreover, it is a fact highly honourable to them, that the Irish emigrants sent home large sums out of their earnings to the "old country," to help their relatives,

and, above all, to enable them to come out to rejoin their kindred in America. During the eight years from 1848 to 1855, upwards of £8,000,000 were for this kindly purpose sent as remittances from America to Ireland. Whole families, including both aged parents and young children, were in this way conveyed out to rejoin one of their members who had already settled prosperously beyond the Atlantic: the aged people willingly and joyfully abandoning the old country to set up the family-tree anew in the New World. Thus natural affection and political sentiment operated in producing, and still more in regulating, the tide of Emigration as potently as many of the purely material interests of which Political Economy alone takes cognisance.

While the Irish betook themselves to America, and to the gold-fields under the "star-spangled banner" of the Republic of the West, the British population of our Isles showed an equal preference for Australia. That vast island-continent of the South—although then not even fringed, but only dotted on its southern coast, with small settlements—was under the "meteor flag" of England; and its laws, social constitution, and political principles were substantially the same as those at home. The length of the voyage, too—half-way round the globe—which probably was distasteful to the Celts, had no terror for the sea-loving Anglo-Saxons. Taking the years 1853 and 1854, the following table shows the number of Irish and of British emigrants who went forth to Australia and the United States respectively :—

		<i>To United States.</i>	<i>To Australia.</i>
1853	{ Irish,	157,000	12,700
	{ English and Scotch,	34,000	42,100
	{ Others,	41,000	6,600
1854	{ Irish,	111,100	16,200
	{ English and Scotch,	42,500	61,300
	{ Others,	39,400	5,700

Speaking roundly, nearly one-half more emigrants of British blood went to Australia than to California and the United States; and in subsequent times the efflux of population from England and Scotland has proceeded to the British colonies of the South in still larger proportions.

So much for the great tide of Emigration set in movement by the Gold-discoveries. Next, let us see what were the first and immediate effects of the new Gold-mines upon Trade and Production. Here, also, we must confine our exposition to the United Kingdom; for it is only in regard to our own country that adequate statistics and information can be obtained. At the same time it is to be remembered that it was upon this country that the gold-discoveries produced the maximum of their peculiar effects; so that in this country more than in any other the operation of these effects can be most advantageously observed. And by what occurred in our own country we may fairly judge the character of the effects of the gold-discoveries upon other countries.

The first great branch of industry (along with the minor one of the outfitting trade) which rapidly expanded in consequence of the Gold-discoveries was

the Shipping trade. 'The Emigrants to the gold-countries from Europe, and to a great extent also from Eastern America, were sea-borne to their destination; and the Exodus was so numerous as to require a Navy for itself. Freights rose enormously. The number of ships built in the United Kingdom increased from 712 in 1852 to 1098 in 1855; while the tonnage during the same period nearly doubled,—partly in consequence of large ships being required for the long voyages to the Gold-countries, and partly owing to the general improvements then in progress in navigation. What is remarkable as showing the brisk domestic trade of that time, is, that although during these years Railways came to an unprecedented extent in competition with the Coasting-trade, the total tonnage of ships built between 1849 and 1855 nearly trebled, while that of the ships employed in the Foreign trade increased only one-half. Nor was this increased demand for shipping confined to the United Kingdom: and in 1853, it was stated that "Australia has found employment for shipping from all parts of the world."

In fact the domestic as well as the Foreign trade increased rapidly under the influence of the Gold-discoveries. In a single year the monetary value of the Exports increased one-fourth,—all of which increase went, directly or indirectly, to the new Gold-countries.

So great an expansion of Trade, occurring simultaneously with the great drafts from the labour-market produced by the Emigration, naturally and

necessarily led to a rise of wages. Beginning in the shipping-trade, in the autumn of 1852 this rise of wages rapidly spread over the country; and during the next twelve months (says Tooke) there was an addition of from 12 to 20 per cent to the wages current in 1851, while in some trades the rise amounted to 20 and 25 per cent. London, of course, felt the maximum effects of the new prosperity, especially in the building of new houses; and the price of bricks rose no less than 50 per cent. Next after the metropolis, the flood of prosperity appeared in Liverpool and Glasgow, in Manchester and Birmingham, which two last-named places supplied the chief part of the manufactured articles wanted in the Gold-countries.

A noteworthy feature of this rise of wages was that it was obtained chiefly by rude and wholly unskilled labour. It was not so much the skilful artisan, as the peasant and the floating mass of ordinary labourers, who hastened to the gold-fields, and whose place was left vacant at home. Accordingly, for the first time in history, the want of labour was most felt in the rural districts. In 1849 and '50, as previously, our agricultural labourers were in a state of deplorable destitution; indeed even in much more recent times the wages of farm-labourers, especially in the south of England, have been barely enough to keep soul and body together, when the families of the workers are taken into account. The gold-discoveries brought a happy alleviation of the hard position of the agricultural population. They joined so largely in the Exodus, that an actual dearth

of labour ensued in the rural districts. Complaints were frequent in 1852-3 that farm-servants, hired for the year, deserted their service; and in many cases the farmers had to apply to the magistrates to stop such desertions. When the Crimean War came, and recruits were in request for the Army, this dearth of labour in the agricultural districts reached its height. In the autumn of 1856 there arose a cry among the Farmers that no adequate supply of Farm-labour was to be had for the securing of the harvest; and Sir Morton Peto, the great railway-contractor, considered the necessity so urgent that he suggested that the Militia should be employed in Harvest-work. "In England," he said, "floating rural labour has within the last few years been absorbed by Emigration, by the prosperity of our Manufactures and Commerce, and recently by the necessary increase of our Army. The consequence of this doubly diminished supply is, that the price of harvest-labour has risen until the Farmers are forced to outbid Railway-contractors; and we find ourselves compelled to suspend for the present the execution of all but very pressing public works. Navvies who were earning from 4s. 3d. to 4s. 6d. per day, have left us because they can earn more at Harvesting."¹ This is a most striking illustration of the influence of the Gold-mines reflected upon the old seats of civilisation: showing how the marvellously large earnings made at the mines, partly by attracting labour from the old countries, and partly by increasing trade and production, and there-

¹ The *Times*, August 13, 1856.

by incomes and wealth in those countries, produced a most beneficial rise in the condition of the population left at home. The improvement was felt, most of all in Ireland, where the wages of Mechanics became nearly as large as in Great Britain, while in agricultural labour the rise of wages was considerably greater in Ireland than on this side of St George's Channel.

At the same time a rise of Prices became general, although hardly universal. Butcher's - meat and animal food of all kinds rose greatly and most of all; and so also did most of the raw materials of manufacture: the former class of commodities rising in price nearly one-half before the end of 1855, and the latter rising at least one-third.

Accordingly the rise of wages, large as it was, was not a pure gain to the working-classes; and in the autumn of 1853, when the rise of wages had reached its maximum for the time, and stopped, strikes began. The Preston strike of 1853-4 is memorable as the first great combination of the employers against the employed. Previously the "unions" or trade-combinations had been rather political and revolutionary organisations; the suffering and discontent of the working-classes finding vent in demonstrations and disturbances, or even, as was common in the early portion of the century, in destructive attacks upon machinery or in rural incendiarism. But from 1853 may be dated the origin of strikes, carried on by purely labour-organisations—combinations directed in no way to political purposes,

and for the most part avoiding all violence, but simply to obtain higher wages than the employers without such pressure were willing to grant. In itself this system of labour-combination is perfectly unobjectionable—nay, perfectly proper under the existing state of things, whereby Competition is designedly the great regulating power. But, like all things else, such combinations among the working-classes may be foolishly conducted; and undoubtedly the system of “strikes,” thus inaugurated in 1853, has frequently produced consequences disastrous both to our country and to the working-classes themselves.

We now come to another, and perhaps the most striking feature of the years 1852-3,—namely, the influx of gold.

The most manifest sign of this influx was the rapid accumulation of gold in the Bank of England,—the stock of coin and bullion in that establishment which had fallen below 8 millions in 1847, increased to no less than 22 millions in June 1853. This large increase in the Reserve of the Bank necessarily led to a very low rate of Discount—the Bank-rate standing for a considerable time at only 2 per cent, while in the open market the rate averaged merely $1\frac{1}{2}$ per cent. This state of matters was eminently favourable to the growth of trade. And thus it happened that, despite the great expansion of commerce and production,—despite, too, the higher wages and rise of Prices,—all of which required a larger supply of Money—Trade was carried on in 1852-3 under sin-

gularly easy terms. Although Trade was exuberant, traders could obtain their necessary loans and discounts not merely at a rate lower than was ever before known, but at the lowest rate that since then has ever been possible even when Trade was at its lowest ebb, and when the demand for banking-accommodation was at a minimum; and rising prices furnished a still stronger inducement to production.

This accumulation of gold in the Bank of England was but a small part of the influx of gold from the new mines. In 1853 some twenty millions were added to our gold-money in the hands of the public: this vast sum merely passing through the Bank, being paid out to its customers, and thereafter remaining in the hands of the public.

In sympathy with the low rate of interest, and also with the then current belief that this low rate would henceforth be permanent, the price of Consols rose above par,—averaging 99½ throughout 1852, and even touching 102. This showed that people regarded 3 per cent, with first-rate security, as the maximum profit or return to be expected upon money invested or on loan. Indeed the belief that the Rate of Interest must be permanently and considerably lowered in consequence of the new supplies of gold was so firmly held even in the highest quarters and by the ablest financiers, that Mr Gladstone, as Chancellor of the Exchequer, propounded in Parliament (18th April 1853) a scheme for the conversion of a portion of the Three-per-Cents into

Consols bearing a lower rate of interest; and the rate of interest on Exchequer bills was fixed at the extremely low point of 1d. a day or $1\frac{1}{2}$ per cent per annum.

The magnitude of the consequences impending from the large new supplies of gold became the subject of general attention and public comment. The public beheld the rapid increase of the stock of bullion in the Bank; they heard of the untold treasures of the lands from which this supply of Money was brought; and week by week the newspapers announced the arrival in our ports and harbours of ships laden with additions to our stock of gold, which was already of unprecedented amount. It was only natural, then, that there should be a revival in augmented force of the earliest of all the opinions entertained in regard to the Gold-discoveries,—namely, the apprehension of a great Fall in the value of Money,—an apprehension which, as we shall see in the sequel, became even greater several years afterwards. But, at this particular time—the beginning of 1853—the paramount opinion was that which related to the Rate of Interest, the value of Money on loan. “It was very generally supposed,” says Mr Tooke, “that the Rate of Interest must be permanently reduced, in consequence of the increase of Money-capital [wealth in the form of Money]—the immediate result of the importations of gold. Both borrowers and lenders were materially affected by views of this nature. The Rate of Interest on advances previously made was reduced;

and new advances were obtained upon easier terms than had been before known."

This anticipation, however, was not supported by the immediately subsequent events. The first and most memorable epoch or stage of the effects produced by the new supplies of gold upon the United Kingdom came to a close in the autumn of 1853. The previous two years were peculiarly the golden epoch. Thereafter, for two or three years, the benefits of the new gold-supplies were chiefly noticeable in their extraordinary power of sustaining the new Trade and prosperity, which they had set in motion, under circumstances which but for them must have had a most disastrous influence upon the country.

The Harvest of 1853 was an unusually bad one, both as regards the quantity and the quality of the crops. In consequence, an unprecedentedly large importation of grain became necessary from abroad, while the harvest upon the Continent was likewise a bad one; and but for the recent improvements in navigation and commercial intercourse, which enabled us to draw the main portion of our grain-imports from America, we should have had to pay a famine-price for this foreign supply. The actual imports of grain during the ensuing agricultural year, from August 1853 to August 1854, amounted to five million quarters (which for that time was an excessively large importation): for which, under ordinary circumstances, we must have paid in specie, making a great drain upon our reserve-stock of

gold. A smaller importation than this, in 1847, by the drain of specie which it necessitated, had produced a serious embarrassment in this country, and mainly contributed to the Bank-crisis in that year, when for the first time the Bank of England had to be relieved from its legislative fetters by the temporary suspension of the Act of 1844.

The gold-discoveries, however, had made a happy change in our power of meeting the calamitous monetary consequences of a bad harvest. Not merely had our reserve-stock of specie—viz., the Bullion-reserve in the Bank of England—doubled in amount in the interval, but the new Trade set in motion by the Gold-mines had the remarkable result of obviating any drain upon our stock of gold to pay for the large importations of grain in 1853-4. The matter stood thus. Nearly all the manufactured articles required by California were obtained from this country. Also the people of the United States generally, sharing in the prosperity occasioned by the gold-mines, had largely increased their commercial and other purchases from the United Kingdom. The result was that the Balance of Trade became highly favourable to this country, and in payment of these balances a large portion of the Californian gold was sent annually from the United States to our shores. When the bad harvest of 1853 occurred, the purchases of grain which our merchants made from the United States, large in amount as these purchases were, did no more than raise the balance of trade to a level. The imports

of gold from the United States temporarily ceased, but no withdrawal of specie from this country was needed. And thus, by the mere increase of trade, and of production in this country, produced by the new Gold-mines, the failure of the harvest of 1853 passed by without occasioning the least monetary disturbance, and the United Kingdom was undoubtedly saved from an otherwise inevitable disaster. The Bank-rate rose to its old level; the accumulation of gold in the British Islands was checked: but that was all.

Next came the Crimean War: and here again the supplies of new gold stood us in good stead. Year by year we had been increasing our commerce with the gold-countries,—especially with Australia, where the British-born colonists took their whole supply of manufactures from the old country; and in those earlier years at least, all the other commodities which they imported were conveyed to them in British shipping; so that even when the imports were of foreign growth, our people obtained (besides the usual trade-commission) no small profit upon the shipbuilding and freights. In this way, the influx of gold into England never ceased. Gold, in fact, was the staple produce of Australia, as well as of California,—the great exportable commodity in which both of these countries paid for their imports, and maintained the balance of trade.

But we have now reached a period, or at least an interval, during which the greater part of the imported gold merely passed through this country as

through a sieve. It was in the summer or autumn of 1855, the second year of the war, that the drain of gold to Turkey in connection with the hostilities, began to be severely felt in England. The export of gold, chiefly for commissariat purposes, rose to a million sterling a month: and the total export of specie up to the close of the war, in the spring of 1856, amounted to fully eight millions sterling.

As has been shown, among the sanguine and happy expectations as to the effects of the new Gold-mines, it had been confidently held that the Rate of Interest would be kept permanently at a low point; and also that England, at least, would be freed from the recurrence of severe monetary crises like those of 1826 and 1847. Even during the Crimean War, the Bank-rate in England had risen to 7 per cent. And now an event occurred which not only finally dissipated these happy expectations, but showed in a very striking manner that, large as were the supplies of the New Gold, they were quite inadequate to support the monetary systems of the leading commercial countries when subjected to those exceptional strains to which Commerce is unavoidably liable.

The Commercial Crisis of 1857—occurring, as it did, when the yield of the Gold-mines was at its height—was in many respects a memorable event. It affected chiefly the Eastern States of America and the British Isles. It had its origin in the collapse of some large financial establishments in the United States, which in turn compelled the Messrs Dennis-

toun and other mercantile firms in this country to suspend payment. Thereupon a Panic set in ; the public made a "run" upon the banks which were known to be connected with the fallen establishments. Then followed what always must follow when depositors insist upon withdrawing their money from the banks in coin. All the Banks in New York, and in most of the principal American cities, closed their doors. Thus, from the suspension of payments by the banks, and by many commercial firms, it became impossible to make the ordinary remittances of money to the British firms engaged in the American Trade. Accordingly, Naylor, Vickers, & Co. of Sheffield, the old and famous Dennistoun firm at Glasgow, and other commercial or financial houses in Great Britain, had in turn to suspend payment. Worst of all, the great Western Bank of Scotland, after reeling and struggling for a few days, had to close its doors. Panic sprang up. The great London house of Peabody & Co., embarrassed by getting no payments from America, was within an ace of stopping : for although its solvency was beyond question, the Bank of England (artificially fettered by the absurd Act of 1844) was too much straitened in its own circumstances to be able to make the required loan. The panic was so great that, had Peabody & Co. fallen, the "run" upon the Banks would have become universal, and a wholesale temporary bankruptcy would have ensued ;—as simultaneously occurred in the United States. But by a stretch of Ministerial power, the Bank Act was suspended : the

Bank of England, released from its artificial fetters, advanced money freely to the many embarrassed yet perfectly solvent firms and banks. The Panic ended, as suddenly as it arose. But serious injury had been done to the commercial fortunes of the country; and both England and the United States were for a while strewn with commercial and financial wrecks. The flight of a cyclone or tornado is past in a few minutes, yet its destructive effects may remain visible for years.

As a careful contemporary observer of that time, I cannot trace any connection—save of a remote and wellnigh impalpable kind—between the Commercial Crisis of 1857 and the influence, whether moral or material, of the Gold-discoveries. Rash speculation there had been, yet no more than is ordinarily recurrent in modern trade. Indeed, the source of the gravest faults, and the cause of the greatest disasters (as in the case of the Ohio Life and Trust Company in America and the Western Bank of Scotland) was not so much speculative enterprise as Mismanagement of the grossest kind. One feature of the times, it is true,—namely, the rank personal extravagance revealed by the official investigations of some of the Glasgow bankrupt firms, which probably was paralleled by cases in the United States—leads to the conjecture that the first prosperity, as well as the sanguine expectations of prosperity, occasioned by the Gold-discoveries, tempted not a few commercial men to indulge in rash and culpable extravagance in

living. But, taking the British and American communities as a whole, it may be affirmed that the check given to inflated expectations by the effects of the Crimean War, and the general circumstances of the years immediately subsequent to 1851, had by this time (1857) toned down men's minds, and had fully sobered the first outburst of high hopes in relation to the new supplies of gold.

The lesson of the Crisis of 1857 was a very conclusive one as to the baseless character of the expectations of a permanently low rate of interest and of exemption from monetary crises. The Commercial crisis, as usual, had eventuated in a Monetary one. Under the demand for money, or of banking accommodation, the Bank-rate had risen to 10 per cent—for the first time in this country,—and even at this high charge it was difficult for solvent firms to obtain the accommodation which they required. In the United States the monetary difficulty was felt even more severely than here. Despite the millions of gold which in a few years had been yielded by the new Mines, all the banks in New York, and many others in the United States, had to close their doors simply from a lack of coin, whether gold or silver. True, it is wellnigh inconceivable that the stock of specie should ever become equal, of itself, to support the marvellous financial fabric under which Modern Commerce is carried on. But the important point to be noticed was, that, despite all the New Gold, the Crisis of 1857 occurred as suddenly, and (so to

speak) as readily, as any previous event of that kind had done. Thanks to the New Gold, the commercial system, or fabric of credit, now rested on a larger supply of Money ; but commerce and production, or the general industry of the world, had at the same time marvellously expanded : so that, in point of fact, the requirement for Money kept pace with the large produce of the Mines, and the increased stock of coin was no more than was needed by the enlarged trade of the world.

Such a state of affairs suffices, of itself, to prove how greatly the world had then benefited from the Gold-discoveries. Yet it is strange that it was just at the time of the Crisis of 1857, or indeed in the subsequent year, that the apprehension as to a great fall in the value of Gold, from its over-abundance, became revived and elaborately formulated by M. Chevalier in France and Mr Cobden in England. Moreover, at this time the world was on the eve of the great Drain of Specie to the East—which was the most beneficent of the various incidents of the Golden Age, owing to the expansion of industrial enterprise which it rendered practicable in India, and also by its preventing a fall in the value of gold in the Western world, whereby the value of the Mines and the profits of the miners were maintained at their old point.

Having reached this stage, and before considering the circumstances and problems connected with the profitable absorption in trade and industry of the

vast addition made to the world's stock of the precious metals by the New Mines, let us pass from the old seats of Civilisation, and see the interesting incidents and remarkable changes which occurred in the Gold Countries themselves,—far over the sea, and in the uttermost parts of the earth.

CHAPTER IV.

THE GOLDEN AGE IN CALIFORNIA.

It is an almost forgotten fact in history that the auriferous stores of California were first discovered and proclaimed to the world by an Englishman, the gallant Drake, nearly three centuries before their re-discovery created the most memorable epoch in the condition of the modern world.

One of Cortez's pilots was the first who coasted along the shores of New or Upper California (the present California) in 1543. Unknowing of this coasting trip, Drake sailed along the shores as far north as Oregon; and on his return southwards, "in thirty-eight degrees north latitude, they discovered a country which, from its white cliffs, they called New Albion. They here discovered a bay, which entering with a favourable wind, they found several huts by the water-side; and going on shore," &c. &c. There has been much diversity of opinion as to whether the bay thus discovered by Drake was the Bay of San Francisco. We think that it was; and anyhow Drake must have seen that bay. Thirty-

eight degrees north latitude marks a point on the coast a few miles to the north of the Golden Gate; and "the cliffs about this part of the coast" (says the old narrative of Drake's voyage), "for a space of nearly forty miles, resemble in height and colour those of Great Britain in the English Channel, at Brighton and Dover." There is also a small bay there (once called Jack's Harbour), which American authorities regard as "Drake's Bay," and have so named it, while they refuse to admit that he ever saw the famous Bay of San Francisco. But it will be observed that in the words which we have quoted from the old chronicler of Drake's expedition, it was not at the white cliffs, but in the country of the white cliffs, to which the name New Albion was given, that it is said, "Here they discovered a bay." Further, they entered it by means of "a favourable wind,"—a statement peculiarly applicable to entering through the long narrow channel of the Golden Gate, where the current runs seaward at the rate of six miles an hour. Further still, the huts are said to be "by the *water-side*,"—not by the sea-shore or beach. If we add to these considerations the express statement that "the Admiral and his people travelled to a distance in the country," noting the superabundance of rabbits, vast herds of deer, and finding gold wherever they turned up the soil,—which seems to imply that they crossed the bay and passed through the Coast Range (by the Straits of Carquinez) into the plains of the Sacramento,—it is absolutely impossible not to assign to Drake the discovery of the

Golden Gate and the now famous bay. The Admiral remained for a considerable time in "New Albion;" and first ambassadors and then the "King" of the district came and paid him homage. "The King took off his crown of feathers, placed it on the Admiral's head, and put on him the other ensigns of royalty; and it is said that he made him a solemn tender of his whole kingdom—all which the Admiral accepted in the name of the Queen, his sovereign." Drake had every inducement so to do, for in his travels "to a distance" he had seen gold in abundance. "The earth of the country," says the old chronicler, "seemed to promise rich veins of gold and silver,—some of the ore being *constantly found on digging*." And Pinkerton, in his description of Drake's voyage, says, "the land is so rich in gold and silver that, upon the slightest turning it up with a spade or pick-axe, these rich metals plainly appear mixed with the mould." The gold was not at that time, nor apparently at any time, worn by the natives; so that, in the fullest sense of the words, Sir Francis Drake was the first discoverer both of San Francisco Bay and of the auriferous *placers* or alluvial deposits which three centuries afterwards have made the fortune of his "New Albion."

All this occurred so long ago as the reign of "good Queen Bess," who knighted Drake for his achievements. The tidings of gold which he brought to Europe created some excitement at the time, and California for long afterwards figured as the *Dorado* of New Spain. But the brilliant enterprise of the

Spaniards about this time became exhausted, and the news of the golden land and Drake's Bay became forgotten. No serious attempt was made to reach and explore California; the Spanish Government contenting itself with promoting the settlement of missionary stations, with a *presidio* for their protection, in order to maintain a formal sovereignty of the region. These missions, few as they were, were almost confined to Lower California; but one missionary settlement was made in Upper California, at Monterey; and a party of missionaries on their way thither, in 1769, got on the wrong side of the Coast Range, and, overshooting their mark, stumbled on the splendid Bay,—which they named San Francisco, after their patron saint. Nevertheless, for two centuries after Drake, mariners traversed the Pacific, even to Behring's Strait, without any of them observing the break in the coast now known as the Golden Gate!

Thirty-five years ago, California was within an ace of seeing another British admiral, like Drake, unfurl the flag of England and take possession of the region in the name of his Queen. Thé British, French, Russian, and United States Governments all had their eye upon California, then visibly dropping from the enfeebled hands of Spain, whose sovereignty, only formal at the best, had then all but ceased. Some American immigrants got up the show of a revolt,—that is to say, they proclaimed California independent of Mexico. But the Spanish Governor and authorities, and the population in general, in-

vited the British Consul to accept the sovereignty, and a formal treaty was drawn up in April 1846. But the Cabinet of Washington were resolved to settle the matter in their own favour, and waged war upon Mexico with the express purpose of compelling a formal cession of California to the American Union. "The object of the United States," wrote Secretary Bancroft to the Commodore on the Pacific coast, "has reference to ultimate peace with Mexico; and if at that peace the basis of the *uti possidetis* shall be established, the Government expects, through your forces, to be found in actual possession of Upper California." Before that despatch arrived, Commodore Sloat took possession of Monterey (7th July)—only twenty-four hours before the English admiral, Sir George Seymour, arrived in the *Collingwood* to accept the sovereignty of the territory. The inhabitants held an excited meeting (9th July), at which they resolved to claim protection from the British admiral, and place the territory under the British flag. But as the town was captured in war, Sir George declined to intervene. Mexico, as a matter of course, was beaten in the war; and by the Treaty of Peace, signed in February 1848, California was ceded to the American Republic as an indemnity for the costs of the war!

Thus the territories of the United States, for the first time, became extended across the continent to the Pacific. At that time the settled region of the United States hardly reached further inland than the upper course of the Mississippi, and St Louis

was the starting-point for the Trappers who plied their hardy trade on the prairies of the Far West. Even within these western frontiers there still remained extensive tracts of fertile soil for settlers; so that, relative to the interests of the mass of the population, the announcement of the annexation of a new province beyond the Rocky Mountains—with a thousand miles of intervening deserts and mountains, and with the upland prairies occupied by the savage Redskins—could have occasioned little interest or enthusiasm. But to the statesmen of Washington, and to the thoughtful class who looked to the future, the acquisition of a seaboard upon the Pacific must have appeared a more than ample return for the trifling costs of the Mexican War. Yet how little did either party to the Treaty of Guadalupe Hidalgo suspect the immense value of the province thereby ceded! It is a remarkable fact that the discovery of gold (Jan. 19, 1848) had actually been made a fortnight before the Treaty was signed; yet neither of the Governments was aware of the fact.

Shortly before, Colonel Fremont, a famous backwoodsman and “pathfinder,” had for the first time discovered a pass over the Rocky Mountains (which now bears his name); and during the war with Mexico some hardy adventurers from the States began to make their way into the new territory. But they were few in numbers; for the perils of the way—the confronting or eluding the hostile Indians, and the traversing of freezing pathless mountains, or burning waterless deserts—were almost insuper-

able obstacles to the journey. Hardly had California become American ground than the new-comers discovered the golden treasure which the sleepy Spaniard had trod over for centuries without observing it. It was a German settler at the confluence of the Sacramento and American rivers who first "struck" gold. "General Shutter"—as the Americans styled him—was erecting a mill to grind his grain, and when the mill-race was being dug, the spade turned up grains of gold. Soon the whole locality was found to teem with the precious ore;—flakes and nuggets in the water-courses, and with auriferous gravel widespread over the plains. Had it been only a "pocket" or an isolated "find," doubtless the lucky discoverers would have kept it secret among themselves. But the gold was everywhere; in every river-bed, and over miles of plain, the precious ore was found to exist abundantly. No dream of gold could have exceeded the reality. And the startling news soon spread over the whole world.

But the new gold-region was wellnigh inaccessible, unapproachable. On the land side, it was shut in by a double chain of lofty mountains, with an intervening expanse of waterless deserts; and by sea it was accessible only by circumnavigating the American continent by the long and stormy voyage round Cape Horn. Accordingly, the first comers were a medley from the adjoining coasts of the Pacific and from the isles of the Archipelago,—Kanakas from the Sandwich Isles, Mexicans from Sonora, and some immigrants from sparsely settled Oregon;

quickly followed by Peruvians and Chilians, and, in greater numbers, by Chinamen from Canton and Shanghai. Considering the distance they had to travel, the Chinese were among the first to flock to the golden land. That people have a sharp eye for the main chance, and wonderful energy in its pursuit,—as the world already knows, and as it will know still better before long, when the new spirit of migration once takes hold upon the myriads of that slumbering but by no means effete race.

Next came the emigrants from the Atlantic States of the Union,—pouring over desert and mountain, and startling the Mormons in the solitude where they fondly hoped they had found a haven of rest. Wrathful at this invasion of their hard-won home—furious at the prospect of their old persecutors once more environing them—the Mormon chiefs joined with the Indians in hostility to the intruders,—often disguising the “Danite” warriors as Redskins in the attacks upon the passing caravans, massacring without mercy, and leaving not even a babe to reveal the tale of blood. Last of all, exactly a year after the first gold-discovery, came the flood of emigrants from Europe, of whom by far the largest number came from the British Isles.

Thus began the gold-hunt. From Europe, from the Atlantic States of America, even from China, an exodus took place;—tens of thousands of adventurers rushing and racing to get first to the Golden Land. They came crowded and half-starved in leaky ships, round by wild and stormy Cape Horn, a voy-

age of fifteen thousand miles. They forced their way across the Isthmus of Darien, struggling through the luxuriant jungles of the Tropics, steaming like a vapour-bath, and over the forest-clad mountain-range from whence Balboa first descried the new ocean of the Pacific,—often losing their way among woods unopened by glades and unpenetrated by any track,—or sinking weary by the way, perishing by fever and malaria. Most arduous of all was the route by land across North America. At that time the whole region west of the Mississippi River was untenanted save by the Red Men; while the broad plains or basin between the two parallel chains of the Rocky Mountains was a waterless desert, covered in some parts with glittering sheets of salt (emblem and cause of desolation), across which the track of every caravan of emigrants was marked by the skeletons of mules and cattle, and often of the daring adventurers themselves.

It was at the close of the year 1848 that the first tidings reached New York that an American Eldorado had been discovered on the Pacific slope; and on 28th June 1849, Mr Bayard Taylor sailed from the “Empire City” for California as correspondent of the *New York Tribune*. He was then but twenty-four years old, but his subsequently published narrative¹ contains a most striking picture of the marvellous country from which at that time reports of untold stores of treasure were daily wafted to the Atlantic seaboard of the United States. The first engraving

¹ *Eldorado; or Adventures in the Path of Empire.*

in the book reveals what San Francisco was in 1848—an indentation sunk below a horse-shoe of surrounding hills, and studded with perhaps a dozen wooden shanties and two or three frame-houses. Upon the spot where there are now half-a-dozen of the most magnificent hotels in the world, Bayard Taylor and his companion found the greatest difficulty in obtaining shelter in a tavern, where they took a room with two beds at twenty-five dollars a-week, with an additional charge of twenty dollars a-piece per week for their meals. “I asked the landlord,” says Mr Taylor, “whether he could send a porter for our trunks.” “There is none belonging to the house,” said he; “every man is his own porter here.” The New York papers were being sold at a dollar a copy. “Hearing this,” says our author, “I bethought me of about a dozen papers which I had used to fill up crevices in packing my valise. There was a newspaper merchant at the corner of my hotel, and to him I proposed the sale of them, asking him to name a price. ‘I shall want to make a good profit on the retail price,’ said he, ‘and can’t give more than ten dollars for the lot.’ I was satisfied with the wholesale price, which was a gain of just four thousand per cent.”

In those days the rivalry between the two nascent cities of the Pacific Coast—San Francisco and Benicia—was hot and angry, and it is to the credit of a young man, aged but twenty-four years, that Mr Taylor then wrote, with remarkable foresight, “San Francisco is marked by nature and fate for the great commercial mart of the Pacific, and whatever advan-

tages she may lack will soon be amply provided for by her wealth and enterprise." The overland emigration of 1849 has been celebrated by many pens, but no one has told the marvellous tale more graphically than Bayard Taylor. He records that between August and December of that year at least thirty thousand souls accomplished a journey of more than two thousand miles through a savage and partially-explored wilderness, crossing on their way two mountain-chains equal to the Alps in altitude,—to say nothing of broad tracts of burning desert and of desolate plain, where there were but a few patches of stunted shrubs and brackish springs of water to minister to man's necessities. The wandering tribes of Indians—Pawnees, Sioux, and Arapahoes—were bewildered and daunted by the moving masses. The cholera swept over them and laid a heavy toll upon their numbers; but still the living river flowed on, until the western slope of the Sierra Nevada had been reached, "when the great interior Wilderness of the Plains resumed its ancient silence and solitude until the next spring."

A considerable time, therefore, necessarily elapsed before the full tide of emigration reached the Golden Land. Yet so eager and headlong was the rush to this new Land of Promise, that only two years after the first discovery of gold on Sutter's Ranch, it is stated¹ that the population of this previously unoccupied country then numbered about 250,000; while the export of gold amounted to £12,000,000

¹ *Times*, Nov. 19, 1850.

per annum ; and it was added that “ almost all the accounts from the new region, although deemed exaggerations at first, have now proved to have been understated.” Once the full tide of emigration began to arrive, the population thereafter increased rapidly. In June 1850, the total White population was below 100,000. In November 1852, according to the Census then taken, the Whites had increased to 170,000 ; and the total population of California was 269,050, — including 30,000 Indians, fully 2000 Negroes, and 54,000 “ foreign residents,” or persons who were not permanently settled in the country. At first sight, the number of this latter class appears extraordinary ; but it includes, and doubtless was mainly composed of, the Chinese, who to this day refuse to settle permanently in foreign countries,—who go abroad only to make money, and with the view of returning to their native land, which in their eyes is still pre-eminent in Civilisation, as it is in antiquity,—and who, when they happen to die abroad, have their remains conveyed home and consigned to the soil of the Flowery Land.

The discovery of the golden treasures of California—or rather their re-discovery, three centuries after the adventurous visit of England’s great Admiral of the Elizabethan age—and also the early incidents of the gold-finding and its strange geological circumstances, belong to the romance alike of human history and of that of the Earth itself. The re-discovery of gold in California, which opened the ever-memorable Golden Age of the world—was made (as

already said) by a German settler, Johan Sutter : but how strange was the impulse which led him from afar into the valleys of the Californian mountains where they slope down to the Pacific ! And how sad was the issue of this discovery, of priceless world-wide value, to the discoverer himself !

Born in Germany, of Swiss parents, Sutter passed his early life in the stately and refined surroundings of the French Court, as a captain in the Body-guard of Charles X. But before he was thirty years of age, he grew dissatisfied with the artificial society of Europe, and began to long for a fresh and virgin world where he could build "a lodge in some vast wilderness," and among an unsophisticated people carry out his ideas of Utopian innocence and the life of Nature. How often have such mysterious impulses, or great yearnings of the human heart, alike in Biblical and secular history, led to high achievements, or even revolutionised the world ! Abraham, a grandee living amidst the luxury and refinements of Babylonian civilisation, in obedience to an inner voice, suddenly went forth from Urr of the Chaldees—to found a Race, and to find a Chosen Land, "flowing with milk and honey," beyond the wastes of the great Arabian Desert, and facing the sunny waters of the Mediterranean Sea. Loyola, and again Xavier, in a great moment, felt the pride and pleasures of life turn to ashes, and, resigning courtly life and the profession of arms, became gallant and heroic "soldiers of the Cross,"—the former devoting the whole energies of his life and genius to sternly

re-establish the power of the Pope and the Roman phase of Christianity; and the latter going forth, with a spirit as gentle as a dove's yet more chivalric than a Crusader's, to India and the far-off isles of the Eastern Sea, to convey to "those sitting in darkness" the light of the Gospel, which he found had brought to his own soul comfort and happiness—a peace which the world cannot give nor take away. By faith, too, Columbus discovered the New World. All his scientific calculations would, by themselves, have remained barren of results: but he, too, heard that strange "inner voice," bidding him to arise and go forth, and find a New World beyond the wide wastes of the Atlantic—a new region not merely for the sway of Spain and Christianity, but a new home for the growing population of Europe, and where European civilisation, when oldening and ossifying, might take new birth, in the fresher forms suitable to a rejuvenescent world.

The impulse which came to Johan Sutter, amid the pageantries of Court and the highly polished life of Paris, was merely a Rousseau-like yearning for the free and simple life of Nature, where alone it was possible—namely, in some far-off virgin land, where Nature was still to be found sitting like a goddess in the green and bosky solitude, royally smiling in her native loveliness. In truth, it may have been but a form of the "home-sickness," the *Maladie du pays*, which so often affects the Swiss mountaineer, and indeed the Highlander of all countries, when he has been long out of sight of his native

mountains, and dwelling amid the busy throng of great cities.

To the New World beyond the Atlantic, accordingly, Johan Sutter took his departure from Paris; and in the summer of 1834 he set out from New York to find his Utopia in the then pathless forests and prairies of the Far West. But the gloom of the pine-forests and the level monotony of the great plains repelled the Swiss captain, who could not conceive of a Utopia without a mountain, a river, or a waterfall. Then he turned his steps to New Mexico, but there he was no better pleased. Its arid deserts, treeless hills, and the fierce untamable Comanche tribe of the Redskins, wellnigh drove him to despair; and he was thinking of returning again, to Paris and the guard-room, when he met with a band of Trappers who told him of a fair and virgin country beyond the great mountains which seemed to realise his desire—the land of his dreams, as he had seen it in his musings in the Old World. Sutter was a rover, shunning town-life; and doubtless he first heard the welcome tidings when sitting by some lonely camp-fire around whose warm and crackling blaze the hardy trappers of the Far West, with sun-burnt faces and leather coats, were sitting at night, enjoying the never-failing pipe, and where Kit Carson or some other famous backwoodsman, who had been trapping beyond the Rocky Mountains, told of his adventures in the hardly known region beyond the almost uncrossable mountain-wall, where the valleys and plains face the sunshine and are

freshened by the soft breezes from the Pacific Ocean. From these hardy hunters of the Prairies, Sutter heard of a fair and virgin country on the Pacific slopes,—and especially of a choice spot where they had wintered, amid tree-clad valleys and large rivers. The country belonged to Mexico, but (they said) it was so little settled that the Governor, Don Gutierrez, would grant land by the league to almost any one who asked for it, and certainly to any one who would pay him the small dues for proprietorship.

So Johan Sutter set out from New Mexico on his memorable journey to the unknown land. But in those days no good Pass had yet been found across the Sierra Nevada chain of the Rocky Mountains, and beyond them the country was wholly devoid of routes or means of conveyance; while the native Indian tribes, although few in numbers, were not friendly to the White Man. But no length of journeying, nor any dangers by the way, deterred the enthusiastic Swiss captain of the French Body-Guard. Accompanying the beaver-hunters on their wild travel, he crossed the Rocky Mountains, and arrived near Fort Vancouver, on the Columbia River, where the Hudson's Bay Company had then a fur trading-post. From the Columbia a railway now runs to San Francisco, through a populated country thick with towns and farms. But in those days fierce Indian tribes, rich in great droves of horses, roamed the country in such numbers as to make the overland journey a dangerous one for a traveller imbued with a due sense of the value of his scalp.

However, between Honolulu in the Sandwich Isles, and the Presidio of San Francisco, there was some trade, at uncertain intervals. Accordingly, after long delay, Sutter managed to reach Hawaii, and from thence, after weary waiting, obtained a passage on board a ship which might eventually land him at his wished-for haven. Meantime, it was bound for Sitka, in the territory of Alaska, in those days the capital of Russian America. A terrible storm arose, and instead of proceeding to her place of destination the vessel had to run for shelter to San Francisco Bay. In this manner the seeker after a new home arrived in the country where his name was to become famous for ages, as the discoverer of the gold-beds of California which have made an epoch in the history and progress of mankind.

At a glance, Johan Sutter saw that it was a fair and fertile land; and he had nearly all of it to choose from. The Spanish or Mexican settlements—the large farms or *rancheros*, were for the most part confined to the southern portion of the province, as in the north the Indians still held their own; and a Spanish Commander, with a handful of soldiers, kept the Presidio on San Francisco Bay, as lord-paramount of the region, and protector of the Mission-house on the Bay,—where the Benedictine Fathers had been settled for wellnigh fourscore years, in their lonely and self-denying work of spreading alike religion and civilisation. For mile after mile, in the adjoining region, the traveller might gallop without beholding a sign of human life, save the wretched “tepee” of the

Indians, or the hardy half-savage Spanish herdsman, armed with the lasso as he tended his roving cattle, and wearing the broad-brimmed sombrero, and the large-rowelled silver spurs, with the jingling "campanalleros," which heralded his presence. Here, then, Sutter for a while roamed to and fro, inspecting the country, and wistfully wondering if here he was to find the goal of his long wanderings; till he found the place of which the Trappers had told him. And there, on the 10th of August 1839, the ex-Captain of King Charles's Guard pitched his tent, rejoicingly,—at the confluence of the American and Sacramento rivers; and began to found the home in the solitude about which for so many years he had dreamed and theorised,—calling it New Helvetia, in memory of his far-off native land.

At first he had his difficulties; for the Indians were not of the peaceful and pliant disposition such as probably had figured in his dreams, and which certainly he would have preferred as the companions of his solitude. And it is related that at the outset, on several occasions, he was so closely hemmed in by the unsympathetic natives that he was all but killed from starvation. Ere long, however, by kindness and superior intellect he brought the Indians first to amity, and then to obedience. He built a fort of adobes or sun-dried bricks, and drilled some of his wild neighbours as its garrison, and taught them also to do the work on the farm which he laid out. In the face of the immediately subsequent events, which flooded California with gold, it reads strangely to learn that

money of any kind was then so scarce that Sutter, with ready intelligence, introduced a currency of his own invention for his work-people,—in the shape of little bits of tin stamped with the number of days they had worked, and which were at any time exchangeable for goods. By-and-by Sutter's Fort became the rendezvous of trappers and travellers, until it was looked upon as an oasis in the surrounding desert of barbarism. "Señor El Capitano" was a man of note. The fathers at the Mission Dolores had a good word for him; and on his visits to the Presidio of San Francisco, among the sandhills, he was always sure of a stately greeting "from the soldier-like Commander." Wealth he might have gained. He grew corn enough to supply California and the fur-traders on the Columbia, in Oregon; while among the Boston skippers who called in at Monterey he found a market for the hides of his cattle. But Sutter was an idealist, and although so rich in flocks and herds and land, he was poor in almost everything else.

In this patriarchal fashion Sutter lived for ten years; and then occurred the memorable event which gave a wide prosperity to the world, yet which brought only ruin to the simple-hearted and dreamy adventurer whose enterprise led directly to the most memorable discovery of the modern world. Thirty-four years ago Johan Sutter was the wealthiest settler on the Pacific Coast, counting his cattle and horses by myriads and his acres by hundreds of thousands; when, on a Sunday afternoon in the autumn of 1848, during the construction of a mill and a

water-channel for its supply, on the banks of the American River, a workman of his, James Marshall, threw up a spadeful of earth which sparkled with grains of gold. At first there was a thought (natural enough) to keep the thing secret; but it leaked out among the other workmen. Moreover, as already said, it was soon found that the whole locality teemed with the precious metal, so that there was enough and to spare for all comers.¹

So the renowned discovery was made. The geological romance of the gold-beds, which soon after came into view, was not less remarkable than that of the human adventure which led to their discovery. Hardly had the discovery been made, in digging the mill-race, than it was found that the banks of the Sacramento River, and also the bed of almost every mountain-stream, teemed with gold. It was in these river-beds that the first workers found their harvest: winning a golden success, the news of which astonished the world, and, despite the great length and

¹ Strange and sad to add, this lucrative revelation, which enriched thousands of penniless adventurers, proved Sutter's ruin, although the most productive gold-fields in the Sobrante region were actually his own legally indisputable property; for, as soon as the news of his discovery had obtained publicity, they were invaded by thousands of diggers, who took forcible possession of his lands, "annexed" his cattle and crops for food, and, within a few short months, reduced him to the verge of beggary. All his efforts to obtain redress or compensation from the Government of his State, and subsequently from Congress, were fruitless, and he was compelled by sheer want to accept a pension of three thousand dollars, granted to him by the Californian Legislature. This pension was subsequently withdrawn; and, for the last fifteen years of his life, Sutter may be said to have lived upon the charity of his friends.

hardships of the journey, attracted crowds of adventurers from the most distant countries. The golden sand was there, and so was the water indispensable for the gold-washing. Soon afterwards it was found that outlying these river-courses there were extensive gravel-beds, the remains of former rivers or of wide inundations which had long ceased, and which were equally charged with gold ; but to which water had to be conveyed from a distance, in order to extract the golden grains from the soil in which it was embedded.

All these first operations were carried on solely on the surface. The golden sands intermixed with nuggets in the beds of the streams and ravines were merely shallow deposits ; and the outlying gravel-beds at this stage were not worked beyond a short depth from the surface. Nevertheless, these surface workings and the rude machinery of the "cradle" were so marvellously productive that they built San Francisco, Sacramento, and a host of smaller towns,—providing at once a market for the immense agricultural produce which the superb climate and virgin plains of California were fitted to yield, and which has since become one of the chief and probably the most enduring element of its prosperity. By-and-by, however, the produce of these mining operations declined ; the gold-deposits in the ravines and river-beds became exhausted, and the outlying gravel-fields ceased to be workable with the rude appliances then in use. Besides bringing water from a distance for washing the surface-gravel, as the excavations

became deeper, sloping channels with a grade of one in twelve had to be cut from the bottom of each digging in order to carry off the excavated gravel ; and these channels or tunnels had to be carried to some ravine (more or less distant) where an outlet at a sufficiently low level could be obtained. The resources of the miners were not equal to such costly operations ; and when this stage was reached, a large portion of these hardy and energetic workers took to agriculture. At the present day, districts where thousands of busy gold-diggers were once engaged are now silent and deserted ; and had California depended solely upon these surface-washings, her population would have fallen away with a rapidity as remarkable as its growth.

Then came the second stage of gold-seeking. The workers betook themselves to Quartz-mining. No longer operating upon the auriferous quartz which had been disintegrated and scattered broadcast in the form of gravel by the great machinery of time and weather, they dug up portions of gold-bearing rock from the bowels of the earth, and proceeded to crush and grind it, extracting the precious ore. Taken as a whole, this quartz-mining in California has not been very successful. Some of these quartz veins were found to be extremely rich in gold, yielding large fortunes to the workers ; but such cases were the exceptions, so much so that for several years it was questioned whether the sums expended upon quartz-mining in California as a whole had not exceeded the total return of gold. Here, then,

it seemed that the predictions of the geologists were correct. But it soon became evident that the quartz-rocks upon which these operations were carried on were not those from which the great auriferous gravel-beds had come.

To anticipate a little, we may state that the gravel and boulders in by far the largest of the Californian gold-beds is pure quartz, and the same is more or less true of all these gravel-beds; whereas it is said that were the present mountains in California pounded down, the quartz contained in them would not constitute a ten-thousandth part of the alluvial gravel-beds so widely spread over the country. Where, then, had all the gold come from? Where were the great rocks or mountains of quartz from whence these widespread gravel-beds proceeded? The geologists, and indeed every one, made sure of the existence of these parent gold rocks or mountains: yet they could not be found. And at length the strange truth came to light that these parent rocks no longer exist,—that they have passed away long ages ago, leaving these widespreading gravel-beds alone to tell of their past existence. These gravel-beds are like streams whose fountains have long ago dried up. In California at least—and may not the same thing ere long be found true in Australia?—the search for gold has revealed a geological romance, left by primeval time to astonish and instruct the world in its maturity; reminding man that the earth existed for immeasurable æons before he appeared on the scene; and preserving for his

eye the signs of the vast changes which have taken place in the surface even of the land on which he now walks,—enabling him to picture the landscape, or extensive panorama, in California during countless ages of primeval time, when these vast auriferous deposits were in the course of formation.

At first the gold-seekers worked away in the ravines and river-beds, content with the ample gold which repaid their labours. But by-and-by the miners began to track these golden sands to a common source. They found that there was a point in the course of the streams beyond which little or no gold was found, but at which point a vast gravel-bed arose on either hand, richly charged with gold, extending for miles from north to south, and that it was the cutting of the various streams through this immense gravel-bed that brought down the golden sands. As explorations were made, it was found that this gravel-bed was the channel of a great river which had once flowed there! Its course has not yet been fully ascertained, but by sinkings at various points it has been traced continuously for fifty miles; its breadth varies from half a mile to a mile and a half; and the gravel-bed which marks the course of this old stream is upwards of a hundred yards in depth. At this depth below the present surface they find the original bed of the river—a bed of rock, smooth and waterworn, with pot-holes where the eddies once swirled; and the middle of the bed, where the current ran strongest, is a good deal

lower than the sides. How many centuries must have passed while this mighty river still flowed upon the bare rock! especially as its current must have been slow, for the bed slopes only two or three feet in the mile. Thereafter, as time and the weather and the feeding torrents and streamlets of the mighty river began to wear down the rocks at its source, its channel began to be covered with boulders and gravel, until it was filled up—a depth of 400 feet. What ages must have passed during the existence of the river! And how remote is the time when it vanished or forsook its course! This old river-bed is now a thousand feet above the level of any of the existing rivers of the region. It is 1000 feet above the Bear River, and 1500 feet above the American River. It must have been in a valley, but now its channel occupies high ground, sometimes actually topping a ridge, through which the torrents of subsequent times have cut passages, at varying depths below the surface, but none of them reaching down to the rock, the original bed of the great river.

Here, then, was the main source of the gold as found in the ravines, gulches, and sands of the rivers. This vast river-course, a mile in breadth and more than a hundred yards in depth, is filled with pure quartz, varying in size from sand and gravel up to boulders, intermixed with hard clay. The boulders are chiefly in the lowest part of the bed, which is also the richest in gold, but at every depth the gravel is amply auriferous. But where had all this immense pure quartz, surcharged with gold,

come from? No rocks or mountains of such a kind as would furnish this quartz-gravel are now to be found in California. The ancient river flowed from north to south, and away somewhere in the north there must have been mountains composed almost entirely of quartz; for, we repeat, it is quartz alone (intermixed with alluvial clay) which fills the broad and deep channel of this old river. It could have been no mere hillocks of quartz which sufficed to fill a channel fifty miles in length, a mile broad, and 400 feet in depth. Mountains of quartz, lofty and broad, must have been there in remote ages to fill with their *débris* so vast a river-bed as this, besides supplying the other auriferous gravel-beds of California; for no less than three or four other ancient river-courses are likewise traceable across the present slopes of the Sierra.

Geologists have an interesting field for study and research in the various gold-bearing Gravel-beds of California. These are distinct from the auriferous sands of the existing streams; they mark the course of ancient inundations, or of rivers which have long ago ceased to flow. They mark the course of extinct rivers, just as the boulders and detritus of moraines mark the course of extinct glaciers. The largest of these gravel-beds is that which we have described, running from Sierra County through Placer County, and which is crossed by the Pacific Railway at Gold Run. What a strange and striking picture presents itself to the mind's eye of any one standing there now! Far in front of him, across a mile of gravel-

bed, and stretching on either side out of view, busy miners and hydraulic appliances are at work, where once a primeval river, a mile broad and proportionately deep, flowed in slow and stately course through a lonely valley, untenanted by any tribe of man. The mammoth, the great elk, and the moose-deer (the last named being the most ancient of surviving quadrupeds in North America) may have stood by the wide river drinking their fill at morn and even-tide, and with blank-gazing eyes beheld to the north the far-off mountains of quartz shooting their white pinnacles into the sky, thick-flaked with gold—a dazzling, glittering mass of light, visible from afar as the slanting sunshine gleamed on their snow-white sides and summits—whiter than any marble, and sparkling with gold. Next, these glittering mountains vanished, sinking in ruins into the bed of the great river. Then the sides of the valley, too, sank away, and the river itself disappeared, seeking lower channels; and finally, its old course was left on high ground, where only tiny rivulets are found, far too small to meet the wants of the miners now toiling in the dry bed of the vanished river—a mighty Pac-tolus of primeval times.

Capital has now come into the field. The small holdings of the first miners, about 100 feet square, have been bought up and consolidated into properties of 200 or 300 acres each, held by companies. Tunnelling and hydraulic operations on a large scale are carried on. Water is brought from the mountains, perhaps for a dozen miles or more, in channels

cut in the rock, or carried in troughs over valleys and ravines, and stored in reservoirs at the gravel-beds. The water is then carried down to the bottom of the excavation, in very strong pipes, and employed under a pressure of 150 or 400 feet in washing down the cliffs of clay and quartz, hard and firm as a wall, which rise around as the excavations descend. Large tunnels, sometimes 1500 feet in length, are constructed from the bottom of the excavation to the nearest ravine; and through these tunnels the loosened gravel is carried away by the water from the workings, and also washed of its golden particles. Although many properties of this kind have been bought, only a few of them can be worked at a time, or even brought into the market for the formation of a company; for there is a scarcity of water in that upland region, and the water that can be obtained is already appropriated. The scant supply of water, indeed, limits the extent of the mining operations. A wet or dry year largely affects the produce of gold; but the quantity of gold as yet untouched, and for the present unworkable, is said to be absolutely incalculable. These great auriferous gravel-beds, says a recent observer, are "hardly scratched over," and hydraulic mining now yields a more certain harvest than the raising of agricultural crops: and thus the golden age in California is likely to last for a period which no one ventures to estimate.

In 1856, the population of California had become half-a-million,—the numerical proportion of the

Chinese steadily increasing (as subsequently it has continued to do, until at present the Mongolians are said to amount to one-fourth of the entire population!) Moreover, the Californian population in 1856, as in the immediately previous years, represented an amount of power and effective labour far in excess of what their numbers would ordinarily imply. In settled countries, the able-bodied males or fighting-men constitute a sixth of the population; but in California at that time the entire population was in the prime of life, and almost entirely males. Thus, the working-power of the new State in 1856 was really equal to that of an ordinary population at least five times greater in numbers.

Such a population, males in the prime of life, were indispensable for the work to be done in that new country. Food, and the simple necessities of life, had at first to be obtained from abroad. The land was uncultivated, save around the few haciendas, whose owners required the produce for their own wants. No line of shipping had been established with other countries, and the immigrants brought supplies of food and other necessities only sufficient for their immediate wants. And when the first ships arrived, there was no pier or jetty. Roads there were none, and mules and horses were few. In fact, everything had to be done, and there was only the labour of man to do it. Thus the gold-fields had to be worked amid the hardest circumstances and under the most expensive conditions. But the gold was superabundant, and far more than paid for all.

San Francisco was the only harbour, the natural emporium ; and, for long, almost the whole supplies for the population of the country passed through it. Manifestly, therefore, large fortunes were to be made there by enterprising merchants,—and the whole population was enterprising, energetic, and given to speculation. Yet at first the population of San Francisco grew slowly. At the beginning of 1849 the settled inhabitants—in so far as they may be so called—numbered 2000 ; in the July following, they amounted to about 5000 ; but in the autumn of that year, San Francisco almost relapsed into a solitude. The tidings of nuggets and immense findings of gold caused a rush to the mines. The host of immigrants rushed off at once to the mountains. Merchants and their clerks alike abandoned the counting-house. Lawyers, doctors, even the State officials, joined in the rush to the gold-fields. Soldiers and policemen deserted ; and no sooner did a ship drop anchor in the Bay, than the crew, eluding or defying their captains, hurried ashore to join in the race for gold. Indeed, for several years after the discovery of the gold-fields, ships were constantly deserted by their crews, and had to lie idle in the Bay, unable to discharge their precious cargoes ; and, when that was done, unable to find seamen to work the vessel on its return voyage.

In May 1849, fifteen months after the gold-discovery, the men at work in gold-finding were about 2000. In three months after, their number was trebled, and thereafter rapidly increased. In June

1852, the men actually engaged in working the mines, or rather the gold-beds—for at that time mining operations had hardly commenced—numbered about 100,000. The total capital at that time invested in gold-getting was $2\frac{1}{4}$ millions sterling. Of this sum, quartz-mining absorbed £1,175,000, with 108 quartz-crushing mills at work. “Placer” mining, or the working the superficial gravel, which required comparatively little capital, absorbed £835,000; and £770,000 was invested in other kinds of gold-getting. At that time—before the vast tunnelling and hydraulic operations in the deep gravel-beds began—quartz-crushing was the only form of gold-getting which required capital, in the ordinary sense of the word; pick-axes and shovels, rockers and cradles, sufficed for the vast superficial deposits; but when 100,000 men were at work, the aggregate value of their tools and other appliances, however rude, was necessarily considerable,—as the preceding figures show.

In the general business of the country at this time (1852)—in houses, mills, farm-implements, and all kinds of real property, together with the money required for carrying on business—the amount of capital invested was about $8\frac{1}{4}$ millions sterling. This may appear a large sum compared with that invested in the gold-fields, considering that gold-finding was still the main pursuit of the population; but, as already stated, the gold-fields at that stage could be worked with little capital compared with the yield of the precious ore.

In newly-settled countries, ordinarily, although

luxuries are exceedingly costly or unattainable, food and the other necessities of life are cheap. In such countries the immigrants at first devote their whole energies to the cultivation of the soil and the rearing of flocks and herds; thus the supply of food is usually abundant, and therefore cheap. Also, in the long leisure of agricultural life, a portion of the clothing is home-spun and home-made. Moreover, as there is little capital or reserve-wealth, the population have little to spend. But all these circumstances were different in California. The immigrants despised agriculture or any common industry, and devoted themselves entirely to the gold-fields. They produced wealth in abundance, without caring to supply for themselves the necessities of life. Confident in the power of gold, they trusted for the supply of their wants to foreign and distant countries. It was not until 1853 that small farms began to multiply. At that time the great crisis occurred in the work of gold-finding,—the surface of the extensive gold-fields having by that time become worked out, while the miners, or rather the gold-seekers, had no capital for the costly operations of tunnelling and hydraulic-mining requisite for the working of the gold-beds below the surface.

When the necessities of life were thus scarce, while the earnings of the population were unusually large, high prices were a natural result. In the early years, the prices of all kinds of commodities, without exception, were at a height almost incredible. In the autumn of 1849, the price of flour had

risen fourfold, and of butcher-meat fivefold. The lowest price of an egg was a dollar; and the same sum was paid for a pill. A pair of boots cost 100 dollars, and twice that sum (£50) was the price of a decent suit of clothes. Among the prices then paid for medicines, it is recorded that a dose of laudanum cost £8, 6s.,—a drop of it 4s. 2d. Pills, per dozen, without advice, £2, 1s. 8d.,—with advice, £6, 5s. For luxuries—such as pickles, fruit, fresh pork, sweet butter, new vegetables, a box of Seidlitz powders, or of matches—the miner who set his heart upon having them was ready to give any quantity of gold-dust rather than be baulked. “We dare not trust ourselves,” say the contemporary annalists,¹ “to name some of the fancy prices given that year lest we should be supposed to be romancing.” In truth, despite the exorbitant prices, not merely profusion but great waste prevailed. The miners being all in the prime of life, headstrong and careless, strongly imbued with the spirit of gambling, and giving way to every impulse of the moment,—so long as there was gold-dust in their bags or pockets, the rate of consumption of general commodities was equal to that of a far larger population. After working for a while on the alluvial gold-beds or in the gulches of the mountains, camping roughly beneath the forests, solitary but for the presence of a few wild comrades, the gold-seeker would rush down to San Francisco, and quickly dissipate his

¹ *Annals of San Francisco*. By Frank Soulé, J. H. Gihon, and J. Nisbet.

earnings in the indulgence of luxuries, or in the gambling "hells" which flourished abundantly even in the earliest years of the gold-discoveries.

These exorbitant prices, both for commodities and for labour, of themselves indicate the remarkable productiveness of the gold-fields. In 1849 the average gains of the miners were from £2 to £3 for an ordinary day of hard work; and in exceptional cases the gains were immensely larger. There are many well-authenticated cases of persons averaging from 100 to 200 dollars a-day for a long period, and others were said to have earned even from 500 to 800 dollars a-day. A piece of gold weighing four pounds in weight was early found. When the average earnings were thus at the rate of from £700 to £1000 a-year, derived from rude manual labour, it is startling to find it recorded that these gains at the outset were "little compared with what was collected shortly afterwards."

For several years there were no banks, to act as safe places for the surplus gold of the miners, or to provide currency for the country. At the outset, coins of every kind were exceedingly scarce, and bags of gold-dust served for currency. It is needless to say there could be no exactness in such monetary exchanges; but gold was so abundant, and prices so high and fluctuating in amount, that a little or even a good deal more or less of the precious ore was not taken into account. In 1851, however, coined money became plentiful; but the coins, like the population, came from all countries, and were of all kinds. But it was all gold or silver; copper in

that auriferous region being held of no account. Even when coins became plentiful, if the value put upon them by buyer or seller was anything like near the mark, they passed current without dispute. So abundant was metallic wealth, that it did not matter although some coins were worth twenty-five per cent more than others. Four single francs were quite as good as the English five-shilling-piece. The smaller kind of silver coins were held in little repute. Of whatever denomination, and of all countries alike, they were all "bits," and passed for the same value.

Life at the gold-fields was of the roughest and most lawless kind. Companionships were formed, and some amount of rude justice prevailed among the mining population; but, as a rule, each one was too much occupied with looking after his own interests to have either time or inclination to pay regard to the rights of others,—especially as a stab or a bullet-shot might be the only reward of his benevolent interference. Each man, in the main, had to rely upon the strength of his own right arm, and his dexterity with the bowie-knife or revolver; and conflicts arose so suddenly that skill in "quick drawing" was reckoned an art even more useful or indispensable than "good shooting," or correct aim. Not a few of the gold-diggers made a practice of settling down upon any temporarily vacant spot they fancied, and perhaps in the course of the night they fenced it in, or erected upon it a rude cabin. When daylight and the proprietor came, the intruder defied ejection. Law was of no use; so the parties

usually fought it out among themselves, with the aid of their friends, and of long purses to hire help.

California, in truth, in those years was a country without a government, without institutions, or any established social organisation. It had provided itself with a model Constitution, but not with the means of working it. The American Republic, alike from economy and from a jealousy of military power, always maintains its standing army on the very smallest scale possible to meet the requirements of its vast territorial dominion. The Government trusts largely to the intelligence and self-acting power of the people, and usually leaves local disorders and suchlike exigencies to be put down in rough-handed fashion by the order-loving portion of the inhabitants of the troubled district. The Americans also push the right of individual independence to its furthest limits, and perhaps to an extent which would be intolerable in a more densely peopled country. California, too, was far remote from the Central Government, and the rush of immigration into it came suddenly and unexpectedly.

But never was a country more in need of a firm government. The medley of races was only held together by the common desire to get gold; and the racial differences, if not antagonism, greatly weakened this sole and slender bond of union. The immigrants, also, belonged to the adventurous, if not reckless class of the various countries from whence they came; and on this account alone they would have been difficult to manage under any kind of govern-

ment. In the midst of this medley of races, and of social chaos, the American Government was represented merely by the official originally appointed for the newly acquired and almost inaccessible province. There was a military governor, of no high rank, and supported merely by a handful of soldiers and policemen—many of whom deserted their posts, and, like the rest of the population, rushed off to the gold-fields. The Government, in fact, was powerless; and again and again, when tumult and bloodshed threatened destruction to society, it was the orderly and property-owning class of the inhabitants who came to the rescue.

The whole population carried deadly weapons, and were too prone to use them. Partly owing to the prevalence of intoxications—for drinking-bouts were the chief or only relaxation of the miners—a quarrelsome spirit pervaded nearly all classes; while the unbridled state of the passions usually converted every little misunderstanding into an affray of bloodshed. "On the slightest occasion—at a look or a touch, an oath, a single word of offence—the bowie-knife leapt from its sheath, and the loaded revolver from the breast-pocket or secret case; and death or severe wounds quickly closed the scene. The spectators often shared in the same wild feelings." Crime of all kinds abounded. Although the majority of the immigrants were honest and industrious, they comprised a large portion of the scum of civilised countries, as well as settlers from lands which were hardly civilised at all. Thefts, robberies,

murders, and other outrages of the worst kind were of frequent or even daily occurrence. And usually every man was so absorbed in making money that if an outrage did not directly affect himself, he gladly shut his eyes to it. San Francisco, as the great resort of the floating population and the holiday-place of the miners, suffered frightfully from these crimes and excesses. Five times the city was burned to the ground before the end of 1852. And on several occasions the outrages rose to such a pitch that the triumph of ruffianism was only prevented by an uprising and combination of the rest of the inhabitants. In the autumn of 1849 the outrages committed by "the Hounds" first compelled the better class to combine and put down the ruffian-bands by summary executions. In 1851, the legal authorities being too weak to execute the law, a majority of the citizens formed themselves into a Vigilance Committee, and publicly executed several persons as malefactors. Even so late as 1856, Lynch Law was temporarily revived in all its terrors.

These perils, and the general disorganisation of society, appear to have had a considerable effect in keeping the price of labour at the very high point at which it continued to stand six years after the gold-discovery, and when prices, especially of foreign commodities, had greatly fallen. In 1853-4 wages in San Francisco were vastly higher (Tooke says four times) than the amount paid in New York, and twice as much as was then paid in Australia. The element of violence and considerations of personal

safety were superadded to the element of excessive demand for labour.

A seriously disturbing influence upon early Californian society was the extraordinary disparity of the sexes. It was claimed at that time that, "like the males, the females of San Francisco were among the finest specimens of their sex, physically, that can anywhere be seen." But they were so few! In all old or fully settled countries—throughout the world in general—there is a numerical equality of the sexes. But in California, in the summer of 1849, among a White population of 100,000 there were only 4000 females of all ages. Of these 96,000 males, 75,000 were between the ages of twenty and forty; at which age in New York (in 1840) there were 93 females, and in England 106.3, to each 100 males. In November 1852, the census showed that while the White population had increased to 170,000, the proportion of females remained as before, at only four per cent; while among the foreign races (the native Indian tribes excepted), and especially among the Chinese, the proportion of females was still smaller. It is difficult for a settled community to realise the influences upon individual life produced by the state of society which then existed in California. Every ordinary household is society in miniature, a little world in itself. Ages and the sexes there daily intermingle. There are the old to be venerated, or at least cared for; there are young children to be loved and nursed, more or less by all members of the household; there

are lads and maidens preparing to enter upon life ; and there is the husband, the head and "bond of the house," over all. The affections of themselves constitute a seemingly frail yet most powerful bond of control, and, together with the respect for the good opinion of one's neighbour, surround each individual with a web of good influences which help to confine and retain him in the paths of social respectability and decorum. It has been observed that in large cities there are depths of degradation seldom met with in rural districts, and that the peasant who settles in the towns, unsuccessfully, becomes demoralised beyond what equal adversity would produce in his old home : the explanation being that in the dense population each unit is lost to moral supervision, and becomes careless of respect ; while the peasant is no longer surrounded by the relatives or old neighbours whose good esteem he could not help valuing or respecting, or by the beneficial influence of the squire and parson. But, in every respect but wealth, the conditions of life in California were still more adverse to the maintenance of morality and orderly life. Each man was an isolated unit—without home, or relatives, or old neighbours—often without even the modest comforts of a house ; with no one but himself to please or to be regarded ; moving in a sparse population of men as isolated and careless as himself, and in a country where the ordinary restraints of law were of the feeblest character. Add to this that these men were in the very prime of physical life, when the

passions are strongest ; and it may well be conceived how dire and unfortunate were the effects of the extraordinary disparity of the sexes. This, then, was one of the many serious difficulties with which society had to contend in California, and through which it worked its way in its marvellous career.

At the beginning of 1852, or somewhat earlier, a revulsion of prices set in. In 1849, every one had been ready to buy, confident in the prospective rise in the value of all kinds of property ; in December 1851, "every one was anxious to sell." The cause would be called in an old country a commercial crisis ; but the trading class was still very small in numbers compared with the labouring portion of the population ; and there was no fabric of credit, such as in old countries, a collapse of which spreads havoc throughout the community. The importation of foreign commodities had been carried to excess, and prices accordingly fell — producing heavy losses to the few, but with advantage to the bulk of the population. Butcher - meat especially, although double the price it then was in England, was hardly dearer than it now is in London. By this time, also, Home production in the new State had begun on a considerable scale ; the cultivation of the soil and the rearing of animals for food was becoming an important part of the industry of the new country. Hence provisions of all kinds shared, but in a much lesser degree, in the fall of prices. Nevertheless, strange as it must appear, the wages of labour remained as high as ever.

In the autumn of 1853 "there was a succession of strikes among most classes of mechanics and labourers, when wages were generally raised from fifteen to twenty per cent." Bricklayers, stone-cutters, and ship-carpenters earned £2 a-day; a blacksmith fully 30s.; printers, as educated workmen, from £2, 2s. to £3, 3s. a-day; and the wages of farm-labourers were £10 a-month with board or the costs of maintenance. As already said, this extremely high rate of wages, which was double what prevailed in the other gold-country, must be partly ascribed to the turbulence and social disorganisation which still characterised life in California.

The beginning of the year 1855 may be regarded as the close of the first period in California under the influence of the gold-mines. It had been a period of extraordinary scarcity of commodities, and of extraordinary wealth, and of exorbitantly high prices. There was an abundance of gold for the labouring class, and great profits but fluctuating fortunes for the few who engaged in commerce. It was a period of turbulence, chaotic society, and general insecurity. In all respects, it was a long period of Transition—in society, commerce, and gold-seeking,—full of serious crises of all descriptions. But the extraordinary wealth of the country, in the shape of gold, and the energy of the people, enabled the young State to work its way successfully through all its troubles. Under the influence of Property, which gradually raised alike the number and the power of the guardians of law and order, the population

slowly but steadily settled down into a well-organised, although still excitable, society. And, taught by experience, commerce, after some gluts of important commodities, at length sobered down from the fever-period, and learnt to accommodate its supplies to the wants and consuming powers of the population.

The beginning of the year 1855, also, witnessed the opening of the Panama Railway; whereby, for the first time, the two great oceans of the world became united by a swift and easy access. The construction of the line was an arduous work. Traversing the mountains and dense tropical forests of the Isthmus, the engineering difficulties of the line were great for that time; but it was the unhealthiness of the region which proved the most serious obstacle. The primeval forests thus penetrated, with their undergrowth of luxuriant vegetation, reeking with hot moisture, were a den of the malaria-poison. Led to that fever-smitten locality by the temptation of enormous wages, the labourers died like flies; and it is a tradition that every "sleeper" laid on the Panama Railway cost a human life. Nevertheless the line, forty-eight miles in length, was vigorously prosecuted, and completed in the style requisite for the traffic-wants of the time. At the Panama terminus a pier, along which the railway was carried, was constructed 350 feet in length; so that steamers and sailing-vessels could run alongside the rails at all times of the tide.

Thus, under the influence of the gold-mines, there began to be realised a grand scheme which had long

lain idly before the mind of the civilised world. At the foot of "the peak in Darien" from whence bold Balboa first gazed with wonder upon the new Western Ocean, gleaming wide and far towards the setting sun, now runs the steam-car of the Present Age,—crossing the American Continent at the point which Nature had primevally marked out to man for the pathway between the oceans, and the site of a future Emporium of the Old and New worlds. And already human enterprise aims at completing the Oceanic union by means of a great canal, through which the fleets of all nations may quickly sail from sea to sea. The Isthmus of Darien will soon be cut, like that of Suez, and America will be dissevered,—in like manner as Africa, at length disparted from the vast mass of the Old World, has been made an insular continent. A Darien Canal was one of the projects which presented themselves to the brilliant genius and far-reaching ambition of Napoleon the Great, and was revived by his dreamy but equally unfortunate nephew; and now the work is undertaken in thorough earnest by the remarkable Frenchman whose genius and indomitable energy have given to the world the Suez Canal. But long before those imperial minds of France had discerned what Nature meant and called upon man to do, there had been the grand Darien Scheme, conceived by the prescient intellect and ventured upon by the bold heart of the Scotchman Paterson, enthusiastically supported by the whole Scottish nation. The hostility of Spaniards and Dutch—then the great navigators

of the world—and the treachery of our new Dutch King, William III., rendered abortive that bold scheme of colonisation; but, otherwise, the settlement of New Edinburgh upon the solitary coast of Darien might have been as successful as was the founding of Carthage by the Phœnician adventurers upon the desert shore of Lybia. Time, it is said, “brings its revenges;” it also brings its justifications. The clock of the world was put back by the crushing of the old Darien scheme; but now, under the magical influence of gold, both in California and Australia, each decade of years will see a marked progress both in canalisation and colonisation, and the ultimate establishment of a great commercial Emporium, perhaps upon the very site where the old Scottish colony was planted by its prescient founder.

The opening of the Panama Railway greatly aided the progress of California; and this event, together with the speedily subsequent settlement of Californian society, may be taken, both in external and internal affairs, as the marking-point of the end of the first period in the history of that new gold-country. The Romance of California was over; the stage of youth, feverous and troubled, was completed; but the country thereafter progressed rapidly in a still marvellous career as a settled State. Capital, with powers in this case invaluable, came into play at the mines; and although the great gold-beds, which so long had been the El Dorado of labour—of the hardy poor from the rest of the world—became closed against individual labour, they

continued to pour forth wealth in its most concrete and marketable form from depths inaccessible save by engineering skill and costly machinery. While San Francisco grew and flourished, towns grew up all over the territory. Orchards, with many-coloured blossoms and fruit, made gay and profitable the valleys; while vineyards, from the select growths of Europe, climbed the sunny slopes; and in the broad plains of the Sacramento River wheat and maize yield their gold-coloured crops, over an unbroken expanse where the plough travels from sunrise to sunset without finding a bourne, or turning to enter upon the backward furrow. And so, while the great Trans-continental Railway came to complete its union with the external world, the new Gold-State extended its borders until it came in contact with mountainous Nevada; and in the silver-mines of that region found a new source of wealth and commercial development as wonderful, and which promises to be as vast, as that of its own gold-beds.

The commercial crisis of 1857, felt equally in the United States as in our own Isles, may be taken to mark the epoch at which the first grand effect of the gold-mines became exhausted. Indeed, as seems to me, the new gold had produced its maximum effect upon prices, upon the value of money, somewhat prior to that date. And this opinion, formed from a consideration of the general facts of the case, is corroborated by the Table of Prices framed by Professor Jevons, and which I regard as more reli-

able than the only other table of the kind which we have—namely, the table annually published by the *Economist* newspaper. These two tables exhibit such wide divergences that it is impossible to place reliance upon either ; but certainly there is ground for believing with Professor Jevons that the greatest fall in the value of gold, or rise in prices, had been reached prior to 1857 ; and, vast as has been the produce of the gold-mines since then, these annual increments have proved less and less adequate to sustain prices at the high point which they reached in 1853,—until at length, according to the general opinion, and also according to the *Economist's* table, the value of money has now risen to its old level prior to 1850.

But the changes which have occurred in the interval, both in the requirement for money and in the condition of the world, are marvellous. Although the demand for gold has overtaken the supply, this is only because many new countries have been added to the domain of commerce, and the previously-existing trade has been enormously expanded. If the effect of the new gold-mines in lowering the value of money has now been undone, the world of trade and the amount of industry and production are far larger than before. The benefits derived by mankind from the new gold are still working. Vast as is the amount of gold produced during the last thirty years, every ounce of it is needed to carry on the business of the world. To return to the gold-supply of 1848 would be a disaster unparalleled, and

in its full extent inconceivable. About a thousand millions sterling of gold have since then been poured into the world, yet the value of gold is now as great as ever. We have returned to our starting-point as regards the purchasing power of money, but what an expanse of progress has been traversed in the circuit! Every man now works in a larger world; new regions have been opened to industry, furnishing new produce to mankind and new markets to trade, and covering the ocean with fleets and argosies unneeded, and therefore impossible, thirty years ago. And for twenty-five years—from 1848 to 1873—that expansion of trade and production went on steadily increasing, supported and in part propelled by the new gold of California and Australia.

For ten or twelve years after 1857, gold continued to be the chief source and mainstay of Californian prosperity. But, as already said, gold-seeking had to be pursued under entirely new forms. Prior to 1857, and for several years after that, quartz-mining, or true *mining* for gold, was rarely profitable. Like all other mining, it is precarious, and also very costly. In working upon auriferous gravel-beds, it is easy to tell the prospect; but the quartz-veins in the rocks fluctuate in the abundance and quality of the ores, and often delude the miner to his ruin. Thus, probably down to 1865, or thereabouts, it is doubtful whether, on the whole, the money expended in quartz-mining was not in excess of the receipts. By-and-by, however, the experience acquired through many failures enabled quartz-mining to be carried on

as a steadily profitable industry. The other forms of gold-seeking which became adopted after the shallow "placers" were exhausted was that which is termed "hydraulicking," wherein tunnelling and machinery for the application of water were employed to work the deep auriferous gravel-beds, having the extraordinary depth of 400 feet and even 500 feet or more.

Quartz-mining, or the search for gold in the veins of the rock, and gold-digging, or the search in the beds of streams or on the shallow gravel-beds spread here and there over the surface of the country, are processes readily understood. But it is impossible to understand the hydraulic mining without clearly understanding the peculiar manner in which gold is distributed in California,—which, we repeat, is a romance of geology. The great Gold-Region lies like a belt along the western slopes of the Sierra Nevada, extending down to the Sacramento River. The gold-veins, or auriferous quartz-reefs in the rock, are found in some places as high up as the very summit of the range (as on the Sierra Buttes), but the Alluvial Deposits form a zone varying from fifteen to thirty miles in breadth, running *across* the foot-hills of the Sierra. The whole surface of the country has been changed since these auriferous gravel-beds were originally deposited; and the gold-beds themselves have been greatly affected by the subsequent changes—the shallow "placers" at the bottom of the slopes, and the deposits in the present streams, where gold was first found, having been of secondary formation, mere washings from the great original gold-beds.

As already said, in some indefinitely remote or primeval time, there must have been entire mountains of auriferous quartz, somewhere in the locality of the Sierra Nevada (if it were then upheaved), and especially in the north-eastern corner of the State. Under the disintegrating agencies of atmosphere and water, by the splintering action of frost, and the denudation by melting snow or rain-storms, these mountain-masses of glittering quartz were gradually worn down in the course of ages; indeed, not even their bases are now left, although possibly these may have been covered up under the subsequent convulsions.¹ The golden débris of these mountains was

¹ It is a remarkable fact and topographical coincidence—the import of which, so far as I have observed, has not yet been considered—that beneath the greater extent longitudinally of the alluvial gold-belt of California, there runs a great auriferous quartz-vein (a *Veta Madre*), varying from six to thirty feet in width, and descending to a great and in most places unreachd depth in the subterranean rock. Also, in Amador county, where the alluvial gold-belt is narrow (only about twelve miles in breadth) but where the detrital mass is very deep, “a distinctly marked quartz-vein occurs in the alluvial gravel, showing how recently veins have been formed” (*Natural Wealth of California*, p. 424). The question arises, Is the existence of this great quartz-vein underlying the belt of alluvial deposit merely an accident; or, if there be a connection between the gold in the rock-vein and the auriferous gravel above, what is it? Has the long crack and fissure in the underlying rock occurred subsequent to the alluvial deposit, and has it been filled with gold-ores filtrating into or flowing through it in a liquid form from the superincumbent gravel? Or is this quartz-vein a vent through which the substance of the primeval quartz-mountains was upheaved? or again, is it one of the roots (so to speak) of these long-vanished gold-mountains? The distribution of gold throughout California has been to a great extent ascertained by the official mineralogists of the United States; but for a consistent explication of this interesting subject we must wait for a Murchison or Lyell, or some eminent geologist in whom a wide knowledge is combined with intellectual genius.

spread widely over the adjoining district, and also was carried down into the beds of the great rivers of that primeval time. Next, Fire became master. Volcanoes were thrown up along the line of the Sierra Nevada (probably then first upheaved), and poured forth lava-floods of a magnitude now unknown—except it be at Mount Hecla, with its eighty or a hundred miles of surrounding lava-desert. These volcanoes (like the quartz-mountains) appear to have been most numerous in the north-eastern part of the State, where the vast extinct crater of Mount Shasta, nearly fifteen thousand feet in height, and also Lassen's Peak and other summits, remain to show whence came the lava-floods. These outpourings of lava of course followed the line of the valleys, filling up some of them to great depths, and also overlaying many of the old auriferous gravel-beds, which are seen cropping out from underneath the lava-hills. Next, a glacial epoch; and Water became again supreme. Powerful currents swept over the country; glaciers ground away the sides of the mountains, ultimately to melt and leave their moraines among the foot-hills. A remarkable thing occurred during this period of denudation. The hard lava in the primeval valleys resisted the action of the floods, protecting the soil beneath them; while the enclosing heights or ridges were swept away,—leaving the lava-beds as hills, spurs, or promontories, in some places from a thousand to two thousand feet above the present surface. Hills sank into valleys, and what had been valleys became long hills.

In consequence of these great changes, the water-system of the region is entirely different from what it was. At present, the streams flow down nearly at right angles to the line of the Sierra, falling into the Sacramento and Joaquin rivers in the Great Valley or basin below, which at one time (before the waters burst through the Coast Range by the Straits of Carquinez) was the bed of a great lake. But in the Primeval epoch, when the gold-gravel was deposited, the great rivers flowed parallel with the crest of the Sierra (which range doubtless was not then in existence), running in valleys across what are now the spurs and slopes of the Sierra. When the changes began, first the lava-torrents, and then the glaciers and inundations from the Sierra, flowed *athwart* these old river-beds; their enclosing ridges were swept away; so also in many places were the rivers' channels themselves; and the portions of the channels which remain are found at intervals on the high lands, intersected by the present streams, and frequently topping the spurs which now run *athwart* their old course.

No less than four of these primeval river-channels are traceable along the foot-hills of the Sierra; and their magnitude furnishes a startling proof of the stupendous changes which have occurred not merely within California, but far and wide, both to north and south. The largest of these river-channels is about a mile broad, and four hundred feet deep—in some places still deeper. Such a river, one would think, must have had its source much more than a

thousand miles off, far away in the northern parts of the American continent; and whither did it flow, and fall into the Pacific? The beds of these primeval rivers are distinctly marked; they are worn in the solid rock, and the rocky bottoms and sides show plainly the polishing action of the mighty stream. These deep channels are generally filled up to the brim with auriferous gravel intermingled with water-worn boulders; the whole mass is quartz, so charged with gold that almost all parts of it repay working, and the lower depths (called the "blue lead" or lode) are especially abundant in gold. It is in these river-channels—filled with the débris of the long-vanished quartz-mountains—that almost the whole of the alluvial gold is found which is treated by hydraulic mining. These river-beds can only be worked where there is some neighbouring ravine, of lower level than the bottom of the channel, and from which a subterranean tunnel (it may be half a mile long) is carried slantingly upwards till it opens into the channel of the old river, and down through which the auriferous gravel is carried off by means of water. Water is indispensable: it has usually to be brought from great distances—some of the canals being no less than thirty miles in length; and the supply is so limited that only a few portions of these deep gravel-beds can be worked simultaneously. A bad gold-season in California simply means a dry year; for the extent of these auriferous deposits is so great that it is believed they will remain productive for generations. And, after them, there remain (besides

the quartz-veins) the alluvial deposits overlaid by the lava-beds, which at present are mined into to a small extent, and which certainly can be followed should the demand for gold become sufficiently great to defray the cost of working these deep-buried treasure-beds.

In 1869 began the third and present period of California. During the first period, 1848-55, gold was the only produce of the country; but it was found in such marvellous abundance that the new State was at once launched upon a career of prosperity. The country was then the Paradise of the working-man. Mere rude labour, in the form of digging and washing, sufficed to produce a larger annual yield of the precious metal than has subsequently been obtained by the help of capital and costly machinery. Thus the new country, although as yet hardly producing anything for itself, was possessed of wealth in its most condensed and exchangeable form, and suddenly became a new market for the productions of the rest of the world. It gave a new impetus to the industry of other countries; and England, as the great manufacturing and trading country, benefited vastly from the new market thus opened on the distant shores of the Pacific. Equally, the benefit was shared by the United States, which had the advantage of being nearer at hand; but the expansion of trade in the Eastern States of America reacted profitably upon production in this country. For the first time in the world's history, the previously solitary waters of the Pacific became traversed

by lines of shipping from Cape Horn, as well as by others connecting the new Gold-State with Eastern Asia and the island-continent of the south. During the second period, commencing with the opening of the Panama Railway, California obtained a shorter line of communication with the rest of the world; nevertheless, under the rapidly increasing wealth of the country, shipping grew more numerous in the landlocked bay of San Francisco, while agriculture in various forms began to be prosecuted in rivalry with the now restricted but still highly profitable search for gold.

This third and present period began with the opening of the Central Pacific Railway,—a vast enterprise originally undertaken under the auspices of the United States Government, from fear lest California during the turmoil of the Civil War might choose to assert its independence, and, possibly in conjunction with British Columbia, establish a separate dominion on the shores of the Pacific. By the completion of this great railway, California was at length fully connected with the Eastern States of the Union and brought under the controlling power of the Supreme Government; while the benefits which California thus obtained were such as amply to consolidate its interests with those of the rest of the Union. Nothing adds so greatly to the value of labour or property as a shortening and cheapening of traffic, whereby goods of all kinds can be conveyed to market at less cost, and therefore with more profit to the producer. The great drawback upon California had been its immense distance from the mar-

kets of the world ; but, now that railway communication was established direct to the Atlantic, an otherwise unattainable impetus was given to Californian industry and production. At the same time, and by the same agency, California became the western outlet of North America, and took its place as one of the great commercial emporia of the world. San Francisco stands on the highway round the world, and, besides the produce of the American Continent, the commerce of Europe and Eastern Asia pours in increasing quantity through the Golden Gate.

In a History of the usual character, in which the observance of chronological sequence is paramount, I should here interrupt my narrative or delineation of the progress of California, and resume it in the sequel, to show the condition of that country at the present time. But, in the plan of this work, I prefer to keep together as much as possible the historical and descriptive portions,—thereby giving equal completeness to the scientific parts, in which I endeavour to set forth the monetary and commercial principles and processes, by and through which the New Gold and Silver Mines operated, and on the whole have greatly benefited the world. Accordingly, overleaping some years, I shall complete this brief history of California under the influence of its Gold-mines by giving a sketch of the country as it now is,—a magical Transformation-scene effected as by the waved wand of the Wizard, Gold.

The astonishment and excitement which California

created thirty years ago throughout Europe, and indeed throughout the world, have for a good time past died out. Not only has the auriferous wealth of California been thrown into the shade by the superior silver-wealth of the adjoining State of Nevada, but, partly from the diminished produce of the gold-mines, and still more from the rapid agricultural and commercial progress of the country, gold has entirely lost its old place as the prime and sole source of wealth, and now ranks third in value among the exported produce of the State. The first place is now held by the cereals, the cultivation of which, at the time of the gold-discovery, hardly covered the area of a good-sized English farm. Further, instead of a secluded and wellnigh inaccessible region, California is now a great emporium of trade, through which the commerce of the world flows in ceaseless streams between the East and West.

In social aspects the change in the condition of California is not less striking. When the early Californians, assembled at Monterey in 1849, promulgated a Constitution for their State, it was hailed as a masterpiece befitting a new State which sprang into existence almost full-grown, under unprecedentedly favourable circumstances, and with wide experience of other States and societies which had slowly and painfully worked their way to civilisation from an initial stage of poverty or barbarism. The Californian Constitution elicited the admiration both of political economists and of philanthropists and social reformers. It was a *régime* of

absolute freedom — social, religious, and political. All men alike free and independent; no slavery; neither race nor religion was to make any difference; resident foreigners had all the rights and privileges of natives. The coloured skin, which was then breeding difficulties throughout Eastern America—destined in ten years more to produce a tremendous convulsion—was entirely ignored, whether it was black or yellow or red. The “open career” was presented to all comers; while the entire absence of a pauper class, and the ease with which wealth could be won, gave to the new State an unparalleled advantage for carrying out its model Constitution.

But alas for human aspirations, however noble, and for man’s expectations, however confident! During the last two years, the only tidings from California which have excited attention in Europe have related to strenuous efforts to overthrow the Constitution which the whole world had so unitedly admired. Not only is political agitation virulent, but the social strife between rich and poor is more manifest than in any part of the Old World; while so far from all men being held “free and independent,” the most orderly and industrious section of the population is placed under bann, and even the supreme Constitution of the United States is sought to be revoked in order that the “unspeakable” Chinamen may be deported bag and baggage from the soil of the Model Republic. Thanks to telegraph and steam-locomotion, these remarkable changes in California have been going on almost

under the eye of Europe ; and San Francisco, albeit the growth of yesterday, is as well known as New York was in the youth of the present generation—when San Francisco was not !

In the Grand Tour which by sea and railway now extends across the globe, hundreds of travellers from Europe annually visit the youthful capital of the Pacific—which, in its greatness, is the most striking outcome of the gold-discoveries. Journeying in a week from New York, the traveller crosses the broad stream of the Missouri ; then traverses the wide upland prairies, long tenanted by the Red men and the buffalo ; and penetrates the chain of the Rocky Mountains by the tremendous cañon or chasm upon which the fugitive Mormons lighted by chance, and found in it a heaven-sent outlet from the western world of persecution. Emerging from the gloomy defile, the railway-train sweeps across the northern edge of the desert of Yutah, where on the left are seen the shores of the Salt Lake, made verdurous and fertile as a garden by Mormon industry ; and, finally, ascending the lofty Sierra Nevada, and crossing between its snowy peaks, the traveller sees California before him, stretching down the sunny slopes to the Pacific, while the railway finds its terminus in San Francisco Bay. The rapid transition from the bleak mountains to the plains is very striking. In three hours' time the traveller descends from the snows of the Sierra to the broad valley of the Sacramento River,—where, if in May, he sees the barley-fields white and ready for harvest ; or, if in June, beholds

echeloned rows of reaping-machines swiftly levelling an expanse of golden wheat, which in another six weeks may be landed on the wharves of Liverpool.

The names of the chief features and places of California—its rivers, mountains, and older settlements—are still Spanish, telling of the old sleepy lords of the soil. But instead of the solitude which owned the Spanish rule, the region is richly cultivated and thickly dotted with towns and hamlets. Broad and blooming orchards occupy the sunny mountain-slopes; and around the Sacramento and San Joaquin rivers an unbroken expanse of grain-crops covers the plains successively with luxuriant verdure and with waving gold; while clouds of black smoke, from funnels just visible above the level crops, show where large and luxurious steamboats are winding to and fro in the links of the flat-running rivers. What a change within less than two-score years! Upon the shores of the then solitary landlocked bay, into which the Sacramento River falls, now stands the great city of San Francisco, the western metropolis of North America—full of fine streets and stately public buildings; and, as befits a great commercial emporium, abounding in palatial hotels. Traversed in all directions by tramways, the cars which run up the slopes are drawn by wire ropes connected with a steam-engine underground. On the site of an old sand-heap there now stands the elegant Park, the resort of fashion, where ladies as well as men drive their fast-trotting pairs at a pace prohibited in Hyde Park. Strangely, this new-

est city of the New World includes a real fragment of the very oldest region of the Old World; and China Town, with its theatre, joss-houses, and opium-dens, is as thoroughly a part of China as if it had been splintered off and transported thither from Eastern Asia.

San Francisco, which owes its existence entirely to gold, still largely shows traces of its origin in the habits of the people. Money-making, more exclusively even than in New York, is the supreme object of life; and money goes for less than in any other city of the world. Stock-jobbing is the prevailing business, and the streets wear the aspect of a Bourse. Great fortunes are yearly made and lost. The spirit of speculation seems to a stranger to amount to a mania, and is shared even by the women. Interest, house-rent, values of all kinds, are reckoned by the month. All classes are "fast" in their habits and notions; and they reckon that the vicissitudes of worldly fortune are so unusually great, that a month to them is as much as a year to ordinary humanity. Large fortunes are so numerous that they have created a fashionable suburb, some miles off across the bay, at Oaklands (so called from its fine oak-trees), at the foot of the hill-range; where the streets are a verdurous grove—where villa-like mansions stand within gardens abounding with rare shrubs and beautiful flowers. These residences of the wealthy class are fitted up with all the most useful and luxurious of modern appliances. Many of them have a room in which there is a dial con-

ned by wire with the telegraph office, and which, among its other uses, is employed by the inmates to give signal of fire or burglars. Oakland is to San Francisco, in daintier fashion, what Brooklyn is to New York; and from their mansions there, the wealthy merchants daily repair by steamboat for business, and the people of fashion for amusement, to the Golden City on the opposite side of the bay. In another direction, six miles off, Cliff House, overlooking the Golden Gate and its passing argosies, is a resort of the San Franciscans on Saturdays and Sundays,—where they lunch or dine, and lounge on the sea-facing verandahs, finding amusement in watching the half-tame seals at play upon the rocks.

The Overland Railway carries its freight of goods and passengers out into the deep waters of the bay, where the ocean-steamers lie ready to start on their various routes over the Pacific—to China, India, Australasia, as well as southward and northward along the western coast of the American continent. And here, on leaving as well as entering San Francisco, the traveller is struck by the strange commingling of peoples and races, which is the most peculiar feature of this new commercial emporium, and a consequence of the wizard-like attractive power of gold. While the officers of the sea-going ships are English or Americans, the crews are mostly Chinese; and in the vessels which touch at Chinese ports there is usually a swarm of Chinamen returning to their native country, carefully carrying with them their store of dollars, and also the funereal

burden of the bodies of their brethren who have died in the foreign land.

Such, in brief, is the capital of the Pacific which has sprung up in the Land of Gold, a direct product of the mines ; and which, more recently, has obtained a new source of growth and splendour in the silver veins of the adjoining State of Nevada. The one State is as rich in silver as the other is in gold ; and San Francisco, as the common seaport, benefits by the metallic wealth of both ; while, being the terminus of the railway-lines, it is the sole western outlet of the United States, and the emporium where the New World, charged with the population of Europe and also of tropical Africa, comes in contact with the oldest States of the old world of Asia. An *entrepôt* of commerce, San Francisco is also a meeting-place not merely of nations, but of races. The Mongolian, the Aryan, and the Negro there meet and commingle ; and the Chinese, immeasurably the most ancient of existing civilised peoples, contend successfully, or indeed victoriously, in the labour-market alike with the most intellectual and enterprising nations from new-born Europe, and with the patient and enduring Negro race from the still uncivilised continent of Africa.

The climate of California, taking the year all round, is one of the finest in the world ; and the growth of the cereals, especially of the wheat-plant, is as abundant in produce as it is superb in quality. The Coast-region has no winter, while in the height of summer the heat never becomes oppressive. In

the great Central Valley, lying between the Sierra Nevada and the Coast Ranges, the temperature varies to a far greater extent, being colder in the winter months, while in summer the heat is absolutely tropical. Yet it is a peculiarity of the climate that sunstrokes are unknown; and the coolness of the nights, by yielding refreshing sleep, sustains the vigour of the workers, while the ever-clear air and rapid evaporation mitigate the effects of the heat by ready perspiration. This Central Plain, lying along the banks of the Sacramento and San Joaquin rivers—which, flowing respectively from the north and south, meet in the centre—is almost rainless for five months of the year. Drought prevails, and dust covers everything. The smaller streams from the mountain-ranges on either side sink into the soil in summer before reaching the centre of the plain. At morning, brooks may be seen running clear and sparkling to a considerable distance from the hills, but by noon their beds are as dry and dust-covered as if water had not flowed there for weeks; their course, however, remaining marked by a narrow belt or ribbon of verdure. In the southern half of the valley, watered by the San Joaquin, the drought in some years is so great as to cause a loss of the cereal harvest; but that never occurs in the northern half, where vast breadths are covered by crops of wheat and barley of the finest quality. Oats, besides being cultivated, grow wild over the uncultivated portions of the State. Whether standing, or after being cut, the grain-crop is per-

fectly secure,—indeed the wheat-husk does not open or relax its hold on the seed until the showers of autumn begin ; so that harvesting operations can be conducted without hurry and at very small expense. Both for fruit and flowers California is unsurpassed. Besides orchards and market - gardens, where the peach, apple, strawberry, and other fruits grow abundantly, the orange, olive, and vine are extensively cultivated. The orange-groves of Los Angeles are a beautiful sight. So early as 1867 one settler had a grove of two thousand of these beautiful trees, twenty feet high, each tree bearing on the average fifteen hundred oranges annually. The same county witnessed the first culture on a large scale of the olive and vine, the latter being indigenous to California. At Anaheim, a settlement formed by a company of Germans, there were in 1867 a million of grape-vines growing, besides ten thousand fruit-trees of other kinds,—“ the whole place resembling a forest and flower-garden, divided into squares by fences of willow, poplar, and sycamore ; and nearly every lot contains a comfortable homestead.” The vine is found to flourish best on the steep hills of the Sierra. Wine of nearly all kinds is produced, and the must is remarkable both for its alcoholic strength and for an unusual proportion of saccharine matter.

The population of California has increased since 1850 (when the first census was taken) from 92,000, of which nearly one - half were native Indians, to 580,000 in 1870, at which time the Indians numbered 29,000 and the Chinese 50,000. The popula-

tion of the capital of the State now numbers 227,350,—having increased 51 per cent during the last ten years! San Francisco is a very healthy city: the death-rate in 1876 having been 18.80 per thousand against 23.58 for Boston, and 27.23 for New York. The population is a *colluvies omnium gentium*; and there is a strange medley of dress, language, customs, and usages. Sunday is held on different days by the Christians, Jews, and Mahommedans, while the Chinese keep no weekly day of rest, taking repose and amusement on their festivals. There is also a different New Year's Day for Christians, Mahommedans, and Chinese,—the last-named people holding the beginning of the year in greater importance, both as regards business and amusement, than any of the others. The Chinaman firmly settles up his business affairs to that date,—making it a point to pay off his debts with a zeal and steadiness of purpose in which he might well be imitated by his Caucasian and Semitic fellow-citizens.

The Chinaman has long been an object of hatred and ill-usage in California, and the Chinese Question is the most interesting and momentous feature in the present condition of that State. Indeed, the question is one which must ere long concern the Supreme Government, and possibly affect the constitution of the American Republic. Congress will be most reluctant to abandon its fundamental principle that all men are free and equal. Yet the cry from California against the Chinese grows stronger and stronger. The Mongolian, with wellnigh forty

centuries of civilisation in his veins, is beating the White race in the labour-market. He thrives where even the keen-witted and energetic American cannot make a living. The emigrant portion of the Chinese (chiefly waifs and strays from the seaports) who have been tempted to leave the Celestial Empire to sojourn for a while among the "outer barbarians"—the civilised of yesterday—is even smaller compared with the vast population remaining at home in China than was the scraping of the early diggers upon the deep Californian gold-beds compared with the mass of auriferous gravel below. But the Chinese immigration is already more than enough to disquiet America; and the emigrant spirit is sure to grow, spreading inland through the overpeopled cities and plains of China. A fourth epoch is impending in California, which may signalise a change for the whole world of the Pacific. The coming Chinese emigration may gradually and slowly become hardly less momentous in the fields of labour and colonisation than were the migrations of the Hun, Turk, and Mongol upon the imperial fortunes of the ancient and mediæval world; while the ocean of the Pacific seems destined to witness the next and culminating epoch of mankind, as a seat of civilisation analogous to, but vastly transcending in magnitude, the bright and sunny world which arose around the shores of the Mediterranean, the Inland Sea of the Old World.

CHAPTER V.

THE GOLDEN AGE IN AUSTRALIA.

AUSTRALIA, the newest of the worlds, has just held the second of her International Exhibitions; and probably the future historian will choose these two great exhibitions, at Sydney and Melbourne, as events suitably marking the close of a most remarkable epoch in the modern world, as undoubtedly the first Great Exhibition in London signalised its beginning. These incidents, indeed, are highly typical. Better than any other single event, they illustrate the great expansion of human settlements and of material civilisation, which are the most striking feature of the memorable epoch which began thirty years ago. From London to Melbourne in the south, from London to San Francisco in the far west—how vast is the transition! If the English metropolis has not played any paramount part in the recent marvellous expansion of the European race and European civilisation, it is at least the fitting milestone from which that progress may be measured. Thirty years ago, as now, London was the commercial capital of

the world. Geographers have remarked, with sufficient truth to justify a striking saying, that the British Isles, this little spot in the north-eastern corner of the Atlantic, is really the centre of the largest mass of land on the face of the globe, and therefore the most suitable site for the world's emporium. Be this as it may, thirty years ago London was already in the van of the commercial world; and it was only natural that not only the first World's Fair should be opened on the banks of the Thames, but also that the first conception of such a project should have arisen in England, as the most memorable individual achievement of the consort of England's Queen, Albert the Good.

We have already seen how many of the fairest and noblest hopes to which the lovely World's Palace in Hyde Park gave rise—or at least of which it was a concomitant, and partly type or exponent—have been dashed to the ground, fragile and vanishing as was the crystal structure itself! Truly, the path of human progress is at best through brambles and pitfalls; and at times, like the bewildered rider on the bosky Mexican prairies, the end of its arduous and bootless efforts is an unwilling yet compulsory return to the point from which it started. Nevertheless, in its main and particular object, the Great Exhibition of 1851 has truly symbolised the course of the epoch which it was meant to herald. Paris and Vienna in Europe, New York beyond the Atlantic, and now Sydney and Melbourne at the Antipodes, have followed the example of London;

while the grand feature of the intervening period has been the growth of that International Trade which it was the special object of the Great Exhibition of 1851 to glorify and promote. Commerce—in itself developed, and in this work aided, by the marvellous inventions of locomotion and instantaneous verbal communication—has now brought the ends of the earth together; and California and Australia, the uttermost parts of the globe, have become familiar, not only in name but in thoughtful purpose, to even the uneducated masses of our own country, and in lesser degree of the civilised world at large.

Of the population of our large towns there is probably no section so ignorant, in knowledge which does not immediately and practically concern themselves, as the Cockneys or pure Londoners of the lower class. Yet it so happens that the name of the late found island-continent of the South, and some of the qualities and doings of its people, have now become “familiar as household words” even to the street-boys of London, as well as to the more opaque understandings of the “bargees” of the river. Strange as it may sound, the Londoner, although purely urban in his life and habits, is in frame of mind quite a sporting character; and it is through this eyelet of his sharp yet circumscribed nature that Australia, or at least Australians, have penetrated vividly into his comprehension. Has not the Australian Trickett beaten our champion sculler, Sadler, and been beaten in turn by the Canadian

Hanlan? And has not an Australian team only failed to beat the best of our English elevens in the cricket-field? Has there ever been a more exciting or memorable day at the Oval than that on which the cricketers of England and Australia contended redoubtably for the palm of victory? And has not the "demon bowling" of a Spofforth and the splendid fielding of our Australian brothers been talked of and betted upon alike in the West-End Clubs and in the dingy lanes of Shoreditch and Blackfriars? And this was not the first, but a "return series" of matches in which England's progeny at the Antipodes have engaged as worthy antagonists with the "old stock" at home in that finest and most popular of thoroughly English games.

These sporting events of the past year, in truth, have had a very peculiar interest and even importance. While our national trade-statistics show how vigorously and largely the new-born Australian people—nation, perhaps, we should say—take their place in the great work of international commerce, and, most of all, of trade with their old home, these contests in open-air games of combined skill and athleticism prove that the Australians, those Britons of the South, preserve alike the old English spirit and the stout English physique. "Cœlum, non animam (nec corpora) mutant," may be said of these Northmen who have now planted themselves as a young but already powerful nation beneath the stars of the Southern Cross. Although their climate is hardly so favourable as ours for vigorous outdoor

exercise, they can fairly compete with the British race of the mother Isles, alike in rowing, yachting, cricketing, and horse-riding. In cattle-driving on the wide plains of the interior, and in long journeys through the bush, they have fully developed the art of rough-riding; and although in horsemanship they do not show the finished style so common on the Lincolnshire fields, our Australian brethren have as firm a seat in the saddle and as daring a spirit as the best of our own fox-hunters. They have no wily fox to follow, but they hunt the more vigorous kangaroo; and while, under the pressure of foreign agricultural competition, we have to pass a Ground Game Bill, proscribing hares and rabbits, the Australians, rejoicing in the vast productive resources of their country, indulge their passion for not unprofitable sport by introducing from abroad, by careful acclimatisation, the *feræ naturæ* which the Mother Country can no longer afford to retain, and in which their own island-continent is so singularly deficient. The Australians stock their rivers with salmon for the pleasant sport of rod-fishing, and seek to plenish their solitudes by importing wild animals and game-birds for the pleasures of shooting and the chase. Indeed, even for horse-racing, and we fear also for betting, they show a taste which, whether praiseworthy or not, must prove to John Bull that they are "chips of the old block." In intellectual pursuits, also, and in their principles and system of government, the Australians are proving themselves worthy of their racial origin; while their material

civilisation, rarely favoured as it has been by extraordinary circumstances, has advanced with a rapidity wellnigh unparalleled in the world. Under all these circumstances, the "blowing," or self-laudation, which Mr Anthony Trollope regards as a characteristic of the Australians—and which has long been familiar to us in the Americans—although not to be admired, can hardly be wondered at.

And all this progress, in the development of human power and of the arts and comforts of life, has been attained (speaking roundly) within the ordinary lifetime of a single generation. Australian history dates really from 1851; and even its *origines*, its earliest and insignificant beginnings, are almost within the span of one long human life. John Pascoe Fawcner, the founder of the city of Melbourne, now the metropolis (if one may venture so to call it) of the Australian continent, lived to so recent a date that he was presented to the Duke of Edinburgh when the royal Duke visited Australia; and one of the Henty brothers, who preceded Fawcner by a year in settling on the mimosa-clad banks of the Yarra-Yarra, is alive at the present day.

According to the common and natural usage of transferring to new lands the names of places familiar in the countries from whence the discoverers or colonisers come, the vast island-continent of the South was first named New Holland by the Dutch navigators; and when, in the middle of last century, the greatest of English navigators, Captain Cook, took possession of the eastern part of the island in

the name of King George the Third, he christened this new British possession, New South Wales—a name then applied generally to the entire region. But the island-continent was so vast, the early settlements were so sparse and distant from one another, and the means of intercommunication were so difficult, that, as colonisation progressed, “New South Wales” became subdivided, and the region originally so called now holds only second rank. Of the present divisions, besides the island of Tasmania (Van Diemen’s Land), South Australia was first split off from New South Wales, then Victoria (originally called the Port Philip District), and lastly Queensland. The Australian territories first received attention in the mother country as peculiarly suitable for penal settlements. “Botany Bay” became a familiar word for transportation; and, undoubtedly, both Van Diemen’s Land and New South Wales proper, with its capital, Sydney, owed no small amount of their earliest progress to the labour of the imported convicts from the far-off British Isles. Tasmania, a small and thickly wooded island, and the seat of Botany Bay, became at a comparatively early time fully stocked with pastoral settlements, and thereafter gave the chief impetus to the settlement of what is now the colony of Victoria. A strong desire arose for “pastures new,” and some of the more enterprising Tasmanians began to cross the narrow channel and settle on the adjoining portion of the mainland, around the shores of Port Philip or on the grassy plains of the Yarra-Yarra. In 1834 the Messrs

Henty established themselves at Portland Bay ; and soon afterwards two other expeditions from Tasmania—one led by Batman and the other by Fawkner—landed on the shores of the bay of Port Philip, at the place where now stands the city of Melbourne.

The first comers, seventeen in number, moored their little craft, aptly named the *Enterprise*, to a tree at the foot of a grassy hill on the banks of the Yarra-Yarra River—at first called Pleasant Hill, and then Batman's Hill, but which has now disappeared under the great city which soon arose upon the spot. The very beginning of that city may be said to have been a store and tavern, built by Fawkner's party, and which, being a place of public resort and of corporeal supply during the week, was also used as a place for divine service on Sundays,—architecturally a mere "shanty," yet existing, and regarded as a venerable relic of bygone times, in 1852, when the flood of gold-seekers began to pour into the still juvenile city from the old centres of population in the northern hemisphere. In 1836, Major Mitchell, who had been exploring the interior, published his narrative, in which he styled the region "Australia Felix," in admiration of its natural fertility; and exclaimed, " We have discovered a country ready for the immediate reception of civilised man, and fit to become [the abode of] one of the great nations of the earth." Settlers began steadily to arrive in the new colony, and each new arrival of flock-masters pushed further and further into the vast solitary plains of the interior. The first census of the now great State of

Victoria was taken in 1836, showing a population of only 142 males and 33 females ; and a year later the population amounted to 500, owning 150 horses, 2500 cattle, and 150,000 sheep,—showing a highly prosperous condition of the population. But speculation, born of the sanguine spirit and trading vigour of the people, outran even the highly prosperous reality ; and a short period of exaggerated hopes and inflated prices quickly overcast the fortunes of the young community. Thus, on the very threshold of Australian history, we find an outburst of the speculative spirit—even in agricultural industry, in the solid matter of sheep and oxen,—such as again and again chequered its subsequent career when speculation found the most congenial of all its fields—viz., Money itself, the canonised metal which constitutes the chief currency of civilised mankind.

Such, in brief, were the beginnings of Australia and of what is now its metropolitan province, Victoria. But before coming to the gold-discoveries, which so brilliantly revolutionised its career, it is highly instructive to notice some of the general conditions under which this Britain of the South was colonised.

The colonisation of Australia took place under peculiar and, in most respects, highly favourable conditions. From the outset the settlers were of one nation : they all came from the British Isles, and mostly from England. Even under the excitement of the gold-discoveries, the immigration came entirely from Great Britain, with the exception of the transitory settlers from China. Thus the Aus-

tralian colonies possessed the great advantage of a homogeneous population,—a marked contrast to the medley of peoples which poured into California, and which, by the antagonism of races, aggravated the disorder which so long prevailed in that sister gold-country. In Australia, also, the immigrants came from the most orderly and civilised of countries, whereas half-barbarous adventurers formed a large proportion of the Californian settlers.

Australia had another great advantage over the other colonies of Great Britain. The aboriginal population was sparse and unwarlike. Their tribal organisation was of the weakest and most rudimentary kind—without great chiefs, still less with tribal confederacies. Accordingly the Australian colonies have never been troubled, or their progress impeded, by conflicts with the natives—as has been the case in all our other colonies. In America our settlers had to encounter the savage Indian tribes; in South Africa, the Kaffirs and Zulus; in New Zealand, the Maories,—in a succession of costly and embarrassing conflicts of which the end has hardly yet arrived. In Australia, vast as that island-continent is, and widespread as are the British settlements, there has always been peace within its borders, undisturbed either by external foe or internal dissensions, or by hostilities with the aborigines; nor have the white men much presumed on their superior power to oppress or despoil the earlier owners of the land.

Happily, also, the colonisation of Australia was conducted systematically, and with a social organi-

sation. The various settlements were founded on the Wakefield principle. This system recognised, from experience, the defects of desultory and haphazard colonisation. In its main features it was a revival of the ancient method of planting colonies, as conducted by the Phœnicians and Greeks, and as exemplified in the still more ancient settlements made from Egypt. In these enterprises the emigration was not confined to a desultory swarming-off of the poor and labouring classes: it included all classes, and generally took place under a chief or recognised leader belonging to the upper ranks of society. It was a planting of communities, not merely a going forth of colonists. In one respect there was a fundamental difference between the colonies of the ancient and modern world. With the former the prime object was commerce—the establishment of emporiums for the merchandise of the surrounding region. Hence the Town—Carthage, Gades, Marseilles—was the first work of the settlers, and it continued to be the stronghold and centre of the colony: in some cases it was the colony itself. Among the Anglo-Saxon race, the great colonisers in modern times, the social spirit is weak compared with what it was among the ancient civilisations; and even under the Wakefield system, where families, in preference to individuals, constituted the emigration, the settlers quickly spread themselves over the new country, engaging chiefly in agricultural pursuits. Such procedure, indeed, was indispensable in the case of the Australian colonies, which lay far

apart from the highways of the world's commerce, and where there were no existing products of the region, nor at that time any store of minerals, to furnish materials for commerce.

The Wakefield system of colonisation, elaborately worked out by its author, aimed at "maintaining an equilibrium between land, labour, and capital." At the outset it was derided by men of science, like M'Culloch and others, as Utopian and impracticable; and undoubtedly this opposition seriously obstructed the project, and maimed it of its full realisation, by tending to prejudice against it the better classes, whose co-operation was indispensable. Nevertheless the system gradually established itself in public favour, and the soundness of its principles (thanks to its success) became recognised by the British Government.

The most ordinary, and one of the most important features of the Wakefield system—under which all the Australian colonies and also New Zealand were settled—was a systematic and careful employment of the lands in each colony as a means of promoting immigration. The public lands were carefully administered, and the proceeds of their sale were devoted to defraying, or lightening, the costs of emigration to suitable persons or families from the mother country. By this means a supply of Labour was obtained, without which the beneficial powers of Capital, or the advantage of wealthy settlers, would have been shorn of their beneficial results. Capital is of little use in a new country, or in any country,

unless there be a supply of labour through which it can operate and be reproductive. A man with money, in Australia or New Zealand, might buy a large tract of potentially valuable land at a very small price, but, without labour to utilise it, the land might remain unproductive for a generation ; so that, through loss of interest, the property would prove a most costly investment, however little may have been the first cost or outlay—in other words, however cheaply the land may have been purchased. Capital, always scarce in new countries, will not go there at all if there be not an available supply of labour. Capital is the means whereby the intellect and enterprise of one man is multiplied in potency, by working through the agency of scores of other men,—with a proportionately increased gain to its owner, while giving suitable remuneration to the hired workers.

The Wakefield system in Australia greatly promoted the growth of commerce, and enabled the colony to become a trading country in a much shorter time than would otherwise have been possible. Emigrants ordinarily consist of the poorer class ; and several thousand families may establish an equal number of small farms, and thereon live comfortably, yet without producing any surplus property or commodities, still less of such kind and in such manner as to be available for export. Even if a considerable number of those families each produced a small surplus of commodities, this surplus, being distributed among so many owners, and over so wide a tract of country, could not readily be concentrated

for the purposes of export trade. But when, as occurred in Australia, capitalists bought or hired large tracts of ground, stocking them with sheep or other animals, and working their "sheep-runs" by hired shepherds—each of whom was able to look after a large number of stock—a surplus of produce at once arose; because the stock thus reared was far in excess of the requirements alike of the proprietor and of his work-people.¹ In this case there are two factors of production, namely, labour plus capital, whereas, in the former and ordinary case in colonies, there is only one, viz., labour. Manual or physical labour, for which kind of work only is there scope in new countries, can produce little more than is needed and consumed by the labourer: its return is little more than self-supporting. But there is no mystery in the vastly superior results obtained when capital is added to labour. Capital represents, and is the result of antecedent labour: it is an accumulation of profits from past work; and, if it be large, it may be the sum of many hundred of labourers. It may be regarded as accumulated labour in the most condensed and readily active form,—capable, as if at the touch of the wizard's rod, of being converted into labour, reproducing at will the energy or working-power out of which it sprang or was accumulated. It may be likened to a spring-coil which has been wound up by the power or labour of many

¹ This is the less to be wondered at, because of the remarkable prolificness of flocks under the steady climate and genial skies of Australia.

men, or even of generations of men, and which can at once give out all the power thus accumulated and stored in it—equivalent to the sum of the past labour expended upon the machine. As regards the colony as a whole, the presence of capital had the same effect as if the working or productive power of each unit of the population had been vastly augmented, while their needful wants or consumption remained no more than that of ordinary mortals. In this way there arose a surplus of production, which soon made Australia an exporting and trading country.

The chief form of investment of capital, and the source of the early foreign trade of Australia, was the squatter system. A vast region of unoccupied and fertile land lay before the immigrants, and the country beyond the Coast Range was peculiarly fitted for pastoral settlement. Accordingly, while the poorer class of immigrants purchased allotments of ground adjoining the coast, converting them into small farms, the wealthy class took on lease large grazing tracts on the plains of the Murray River and its tributaries, stocking them chiefly with breeds of sheep from Europe. Under the clement skies of that region the flocks multiplied rapidly, needing little attendance. Mutton became exceedingly cheap throughout this colony; indeed, owing to the smallness of the population and the high cost of conveyance, the greater part of the flesh of the flocks was of no value. The processes of preserving meat, now so common, were then unknown; neither had large ocean-steamers come into use to expedite and facili-

tate conveyance between these distant settlements and the rest of the world. But wool and tallow were readily conveyable; and so the flocks were yearly shorn of their fleeces, and their carcasses were boiled down for the tallow: and these two commodities, almost from the outset, formed the staple of a foreign trade for the new country.

So wisely conducted and so prosperous was the settlement of the Australian colonies, that in 1841 (only ten years from the first settlement), the Crown lands sold at £1 an acre, instead of 12s. as originally contemplated. Contemporarily the Government lands in the United States, although much more accessible to the European emigrants, sold at only a dollar an acre. After being thoroughly discussed, the squatter system was formally adopted and established by legislation throughout the whole Australian colonies in 1846. In the "old days" grazing land was to be had for the finding, and not a few fortunes were made merely by being the first to discover, and claim at the Registry Office, some stretch of green savannah, well wooded and watered, lying beyond the settled country. It mattered little to the squatter whether his flocks multiplied beyond the capacity of his run, — because he had merely to take up more land. And so, without society, save that of his few shepherds and station-hands, the Squatter dwelt in the wilderness, a king in the midst of his own holdings, living much as he listed, knowing only his own rule and law, and frequently building up a magnificent fortune.

But, soon afterwards, the unexpected advent of the gold-discoveries quickly began to alter the conditions of the case. Population and the requirement for land increased with wholly unlooked-for rapidity, gradually rendering unsuitable a land-system which had worked admirably during the circumstances for which it had been designed. The Squatter was roughly roused from his dream of unquestioned lordship of the land. Far and wide the gold-diggers rushed heedlessly or defiantly into the lands of the squatters, where the only sign of ownership or occupancy was an occasional flock of sheep. The squatters were incensed at such an invasion of their territory; and there began that great land-question which ever since has been by far the most momentous and the most bitterly fought subject of contention throughout the Australian colonies. The influx of the gold-diggers, however, was anything but a pecuniary financial hardship to the squatters. A ready-cash market was at once established for their superfluous stock, and the price of mutton and of other farm-produce rose immensely, with a corresponding increase in the value of the squatters' property. Large fortunes were made by those sheep-farmers who sold their property when the gold-fever was at its height, and Australian millionaires for some years became common in England. A rare phenomenon; for it is one of the rarest of occurrences for a man to make a large fortune from farming.

Such was the condition of Australia when the

gold-discoveries took place. In all social respects the colony presented a most favourable contrast to what had occurred, and indeed was still occurring, in California. Victoria and New South Wales, in common with the other Australian colonies, possessed a stable government and an orderly society. The population was homogeneous in race, and the flood of immigration occasioned by the gold-discoveries (the migratory Chinese excepted), belonged entirely to the same British stock. The gold-seekers found themselves among a population of the same race, language, laws, and religion as themselves. Hence there was a reign of order in Australia even during the gold-fever, which presented a happy contrast to the chaos and turbulence prevalent in California. And, as already stated, this security to life and property was attended by material as well as moral and social benefits; for wages and prices returned to a normal level as soon as the exceptional conditions of supply and demand were over, instead of being long kept at an excessive height, as in California, owing to the turbulence and social disorders under which industrial pursuits had to be carried on.

In 1850, just before the great gold-discoveries occurred, the Australian colonies, with the ready assent of the mother country, acquired the powers of self-government, with parliamentary institutions, but under governors appointed by the imperial government, and paid out of the colonial revenues. Under any circumstances Australia could safely

reckon upon a slow but steady and orderly career of prosperity. Far removed from Europe, the seat of the great warring States, and the chief source or centre of the world's wars; secure even from the visits of hostile fleets, because protected by the all-powerful British Navy; exempt also from any internal conflicts with a hostile native population, the Australian colonies were to a singular extent left free to develop their resources in perfect peace and security. Nevertheless, but for the magic power of gold, their progress would have been slow, and rural life alone would have prevailed for many generations. Great towns, those hearts of civilisation—where the pulse of human life beats quickest, albeit feverishly at times—would not even yet have arisen even upon the shores of the beautiful bay and secure haven of Port Philip. Australia would have remained a sparsely peopled land, covered by the wide sheepwalks of the wealthy squatters, and by the small farms of the common people: a land without poverty, and of secure although homely comfort; and with no greater foreign trade than arose from the wool and tallow brought down from the interior over bad roads and at heavy cost. At the time of the gold-discoveries, there was hardly a place worthy of being called a town; there were no piers or harbours other than of nature's making; and rude jetties, or temporary planking, were all that was needed or thought necessary for the few ships which arrived bringing immigrants and taking away the surplus agricultural produce of the country. But

gold, the most potent of magicians, speedily transformed Australia as it transformed California. It built Melbourne, the London of the Antipodes, and changed Victoria and New South Wales from a townless and sparsely peopled agricultural territory into a state containing nearly all the commingled industries and resources which build up the power and prosperity of the greatest nations.

Even prior to the discoveries in California, it had been known that gold was to be met with in Australia. Small pieces of the precious metal had occasionally been picked up by shepherds in Victoria, but no one dreamt that the country contained great beds of gold. Accordingly the Government discouraged any attempt at gold-finding. Believing that the metal only existed sporadically, in small quantity, and was to be found merely by chance, the Government at first suppressed the news of occasional "finds" of the ore,—fearing lest a gold mania and gambling spirit would, without any adequate return, divert the population from its course of steady industry. But the tidings of the great gold-discoveries in California changed the aspect of this matter. A rich and extensive gold-region was shown to be possible and existent. Geologists, also, recognised a resemblance between the rock-formations in many parts of Australia and those which had proved so auriferous in California; and the same resemblance struck the eye of some settlers who had previously worked on the Californian gold-beds. In March 1850, a gold nugget was found at Clunes, and

was exhibited in a shop in Victoria. Under these circumstances, the Government reversed its policy, and, wisely resolving to expedite the development of this highly probable new source of wealth for the colony, offered a reward to the discoverer of a gold-bed. In August 1851, the precious metal was at length discovered by Mr Hargreaves in large quantity at Ballarat—a locality which has proved to be one of the most auriferous in Australia. And soon afterwards gold was discovered in abundance throughout both Victoria and New South Wales.

This discovery of gold at once changed the entire aspect and general condition of these colonies. They had to pass through a period of industrial and to some extent social disorganisation, but accompanied by a vast increase of wealth, which soon launched the country on a new, orderly, and most prosperous career. At first, the whole industrial fabric was dislocated, and population rushed away from its old seats and pursuits. “In the course of a few months, half the male population of Victoria had left their legitimate occupations, and had gone hot-footed in search of the precious metal. Workshops stood idle, business places were closed, ships lay empty at the wharves, trade was at a standstill, business was allowed to drift where it would: there was but one thing thought of, and that was gold.” Next, and speedily, there came an influx of population from the adjoining colonies or provinces of Australia; and of the seventy thousand inhabitants of South Australia, no less than twenty thousand hurried off

to Victoria. Finally, in the summer of 1852, there began to arrive the flow of emigration from Europe, which for several years continued to pour in as fast as ships could bring them. The previously solitary expanse of Hobson's Bay began to fill with emigrant ships, which were deserted by their crews as soon as they had dropped anchor; and before they could be manned again for departure, no less than £40 a-month had to be paid to each seaman for the voyage.¹

In Australia, both in Victoria and New South Wales, the great gold-beds lay beyond the Coast Range, in a region to which there were no roads, and where no habitations were to be seen,—save here and there, at great distances from each other, the homesteads of the squatters. It was fortunate for the gold-seekers that these shepherd-kings had arrived before them in the solitude, and covered the wide plains with their countless fast-breeding flocks. Animal food remained cheap, even when the rush to the gold-fields was at its height; and as small farms were numerous, and the cultivation of the soil had been early established, the scarcity of food-supplies in Australia never became so severe as it had been in California. The comparative homogeneousness of the population, too, and the lesser proportion of law-

¹ "At the anchorage in Hobson's Bay, at the present date (November 1852), there are 117 ships or barques, and 33 brigs or schooners, besides steam-vessels, and about 70 sail of a lighter draught of water, which, as requiring a depth of not more than nine feet when loaded, are able to ascend the river to Melbourne. This amount of shipping forms a surprising spectacle for this young colony" (*Melbourne Argus*; Tooke, vi. p. 816).

less adventurers and outlaws from foreign lands, rendered life and property on the plains of Ballarat and Bendigo less insecure than they were among the gulches of the Sierra Nevada. But the raging thirst for gold, combined with the unavoidable absence of civic restraint, which offered the lawless and criminal passions the temptation of opportunity, made turbulence and crime of too frequent occurrence. Lawlessness, it is true, never obtained the mastery in any district; but at the gold-fields, and on the solitary roads leading to them, thefts, robberies, and even murders were perpetrated; and the dissipated class of miners carried their turbulence and unbridled passions into the towns, which they made the seat of their passing orgies.

During the four years subsequent to the discovery of gold, nearly four hundred thousand immigrants were added to the population of the Australian colonies—including Tasmania, where the influx was small. Despite this sudden influx of gold-seekers, the proportion of the sexes remained highly satisfactory,—the females constituting fully forty per cent of the Australian population, even in Victoria where the flood of immigration was largest. Naturally it was the two gold-colonies, Victoria and New South Wales, which received the largest portion of the influx of population; and Victoria, which was by far the most auriferous region, was the goal of considerably more than one-half of the entire immigration during the first four years. Gold was discovered in Victoria in August 1851, and before the end of that

year fully ten thousand immigrants had arrived in that colony in search of the precious metal. In each of the next two years the immigration amounted to nearly a hundred thousand. This was the flood-tide of the immigration. Thereafter it began to slacken; but the immigrants in 1854 into this single colony amounted to about seventy thousand. So sudden and large was the influx of the new population, that the exertions of the Government, generously aided by the public, were requisite to provide temporary accommodation for the immigrants upon landing. Barracks were erected at Melbourne, to give temporary shelter at a small charge; while the larger portion of the immigrants encamped in tents—a mode of habitation which was healthful and even agreeable, especially at that summer season of the Australian year. Several villages consisting entirely of tents thus arose on the outskirts of Melbourne,—the largest of which, situated on a rising ground, contained some four thousand inhabitants, well supplied with stores and protected by the urban police. The population of Melbourne at this time (January 1853), had grown to fifty thousand persons, or more than double what it was at the date of the gold-discoveries; and the large suburb of Richmond contained many thousand more.

In the early years of the gold-discoveries, 1851-3, the population at work upon the gold-fields of Victoria was not correctly ascertained. According to the estimates then published, the population so engaged amounted in 1853 to 100,000; but when the

census was taken in April 1854, the number was ascertained to be 67,000. This fact, however, does not necessarily imply that the previous estimate was exaggerated; because in Australia, as in California, a great crisis occurred in gold-seeking,—owing to the exhaustion of the *surface* of the gold-fields, and the impossibility of working the gold-beds at even a small depth below the surface without machinery and capital; in consequence of which change in the conditions of working, individual labour gradually became ineffective, and large numbers of the gold-diggers forsook the gold-fields, and betook themselves to other work.

The earnings of the gold-diggers during the first stage was ascertained to be from £8 to £10 a-week. This was the average; and in many cases, of course, the earnings of the individual miner were many times greater. These lucky instances were kept in mind rather than the average earnings, high as these were. Moreover, every instance of extraordinary luck was widely circulated, and even exaggerated, by the shanty-keepers and other traders at the gold-fields, in order to attract a large population, among whom they could carry on their highly profitable business. In 1855, the daily earnings were still reckoned at from fifteen to thirty shillings a-day; but by that time individual labour was becoming less effective than co-operation under a capitalist, with the receipt of wages. Indeed, with the exhaustion of the surface-deposits, and especially with the growth of quartz-mining, the working of the gold-beds passed

into the ordinary form of industry, and wages took the place of individual earnings.

Considering that the average earnings in 1855 were still so high as fully £1 a-day, it seems as if the average rate above mentioned of £8 or £10 a-week was too low, certainly a very moderate estimate, for the years 1852-3, when the yield of the gold-fields per head of workers was admittedly at its highest point. During these two years, the ordinary rate of wages in Melbourne, the capital of the colony (where industry could be carried on more comfortably, or with less hardship, than at the gold-fields), was from £6 to £7 per week; whereas the rate of wages prior to the gold-discoveries had been from thirty to forty shillings a-week. In other words, the discovery of gold at once quadrupled the wages of ordinary labour, while the gold-diggers earned about six times as much. In this way, for several years, there was witnessed the remarkable circumstance, that mere manual labour, working for itself, was able to produce a large surplus of capital or reserve-wealth. Previously it had been capital, invested in the squatting system, which had produced the only surplus wealth of Australia; but now, owing to the extraordinary richness and easy working of the gold-beds, unassisted labour rapidly produced a large amount of surplus wealth, which in its circulation benefited all classes of the population, and became the main source of the rapid expansion of the foreign trade of the Australian colonies.

The production of gold in Victoria, as in California,

attained its maximum within two or three years after the discovery. In the adjoining province of New South Wales, the course of gold-production was quite different, and grew larger and larger after 1855. By the end of 1860 probably not less than a hundred millions sterling of gold had been produced in these two provinces of Australia.¹

The emigrant ships arrived earlier than the trading vessels. The labouring population of distant countries loosened themselves from their native soil and rushed to the gold-fields faster than commerce, with all its enterprise, could furnish supplies for the

¹ According to the estimate of the Registrar-General of Victoria and of the *Sydney Herald*, the produce of these two colonies during the first period of gold-finding was as follows :—

	New South Wales. Ounces.	Victoria. £
1851, . . .	161,880	580,587
1852, . . .	199,500	10,899,733
1853, . . .	173,960	12,600,083
1854, . . .	148,900	9,568,262
1855, . . .	107,250	11,172,261
1856, . . .	134,950	11,942,783
1857, . . .	148,126	11,046,113
1858, . . .	255,535	10,112,752
1859, . . .	293,574	9,122,702
1860, . . .	355,328	
1861, . . .	403,139	£86,045,276
1862, . . .	584,219	
	<hr/> 2,966,401	

Taking the Australian gold, which was very pure, at £4 the ounce, the gold-produce of these two colonies down to 1862, as here estimated, amounts to nearly £98,000,000. Professor Jevons, in quoting these figures, correctly remarks that it is a serious mistake to treat the gold *exported* from New South Wales as the whole produce of that colony; several millions sterling having been contemporaneously coined at the Sydney Royal Mint.

new and highly profitable markets thus opened to it. Accordingly a great scarcity of commodities ensued in Australia, although it was felt less acutely than in California. The period of highest prices in the colony of Victoria was the twelve months subsequent to August 1852; but some commodities, especially food-supplies, attained a still higher price in 1854-5. Taking commodities all round, prices quadrupled, and at their maximum became fivefold, compared with the prices which had prevailed during previous years. Butcher-meat, the most plentiful of all the commodities in Victoria, rose from a penny or two-pence a pound to sixpence in the autumn of 1852, and to eightpence and ninepence in 1854. Flour, which had ranged from £8 to £16 the ton, rose to £40 in 1852; and after falling to £30, rose again to £42 or £44 in the first half of 1855. Butter rose from a shilling or eighteenpence the pound to four shillings in 1853, and to five shillings at Midsummer, 1855. Garden-produce became for a while still dearer: a cabbage early in 1854 cost five shillings, but, in two years afterwards, only twopence. Building materials, during the height of the gold-fever, increased in price beyond the other commodities. Bricks rose from thirty shillings the thousand to £15 and £18 in the autumn of 1852; and timber per-foot rose from fourpence to eighteenpence in the same period of 1852, and to half-a-crown in 1853; but both of these materials, and many other commodities, gradually sank thereafter, until they stood at about double their old price in 1857-8,—by which

time a condition of settled prosperity had been reached.

The value of the Crown lands throughout the colony of Victoria during these years of excessive prices rose greatly,—the average price per acre in 1851-3, as shown by the Government land-sales, being £3, 10s., as against two guineas previously; while the extent of land sold during these years was twice as much as it had been during the whole period from 1837 to 1850. But it was in urban localities that the rise in value was most remarkable; and, under the influence of speculation as well as prosperity, the price of town and suburban land rose extravagantly high. The fortunate owner of a small building-lot in Melbourne in a few months' time found himself a wealthy capitalist; and in some of the streets of that city, land sold at the rate of nearly half a million sterling the acre.¹

Owing to these high prices, the cost of living, of course, was proportionately augmented; while the

¹ The effect of the discovery of gold on Melbourne land-prices may be illustrated by the following among many instances. A piece of land in Collins Street, having 22 feet 5 inches frontage, with a depth of only 16 feet 5 inches, having on it a small wooden building of but little value, was sold towards the latter end of 1853 for £6000, being at the rate of £267, 1s. per foot frontage, or about £441,000 per acre.

"Within the last twelve months (1859) the prices realised for land of an ordinary depth in Melbourne, not built upon, or with inferior tenements of small value, have been as follows, viz.—In the outskirts of the city, as North Melbourne, &c., from £2 to £6 per foot; in Elizabeth Street (from Lonsdale to Flinders Streets), from £150 to £200 per foot; in Bourke Street (from Queen to Spring Streets), from £90 to £250 per foot."—(*Archer's Progress of Victoria*, p. 25.)

rapidly increased wealth of the community, arising directly and indirectly from the gold-mines, furnished the means for commensurately raising the wages of labour. It is needless to quote the wages in pastoral or agricultural life, because these were always accompanied by board or maintenance; but the wages of ordinary labour in towns quadrupled during 1852-3. The pay of carpenters rose from five or six shillings a-day to twenty-five or thirty shillings, and fell to twelve shillings a-day in 1856. The wages of masons and bricklayers followed the same course; increasing fivefold during the height of the gold-fever, and thereafter declining, until they settled at double their old amount.¹

With Midsummer, 1853, a change began in the state of prices and in the commercial condition of Australia. Settlers were still pouring in as numerous as ever; but immigration had reached its maximum, and thereafter began slowly to decline; and simultaneously the merchant-ships, bringing supplies of all kinds, began to arrive thick and fast. In the month of May, 1853, besides smaller arrivals, twice a-day some large vessel from the other side of the world sailed into the port of Melbourne, bringing supplies of all kinds, chiefly from England and New York, while trading vessels from India brought stores of tea and rice. But when these ships cast anchor in the bay, they found that the mere cost of sending

¹ This statement of prices and wages is mostly compiled from tables given in the appendix to Tooke's *History of Prices*.

their goods ashore was as much as the entire freightage from England. Not only was labour at an exorbitant price, but the wharves, although by this time considerably enlarged and improved, were totally inadequate for the requirements of the shipping. The lighterage, or mere landing of the goods from the ships to the wharves, cost from twenty-five to thirty shillings per ton; nor need this heavy cost be wondered at, when we read in contemporary records that sometimes weeks elapsed before a lighter could find a discharging berth at the wharves. And just as there was a difficulty in finding accommodation even of the rudest kind for the immigrants, so was there a difficulty in finding storing-room for the merchandise. The warehouses were filled to overflowing; and the rent paid for temporarily storing the imported goods added a further element to their market-price. Moreover, at the time when the supplies of merchandise thus began to pour into the Australian ports, it was winter there, although summer with us; and as the country was still almost roadless, the communication with the gold-fields, for which the greater portion of the new supplies were destined, was entirely closed for two or three months. Thus before the year was out a glut of goods had begun to occur at the seaports; and as the merchantships continued to arrive in undiminished numbers, a glut of the imported commodities rapidly extended over the entire gold-colonies.

Supply had overtaken demand. And the merchants in the distant countries from whence the

supplies came (chiefly Great Britain) necessarily remained for a long time in ignorance of the altered condition of the Australian markets. At that time there were no telegraph-lines traversing the continents, and, safely submerged in the bed of ocean, uniting the extremities of the inhabited world. There was no Suez Canal; even the Cairo railway had not been constructed to lessen the delays and discomforts of the overland route to the East. Steam-navigation, too, was still in its infancy, and no lines of swift ocean-steamers had as yet brought the island-continent of the Antipodes into closer relation with the rest of the world. The only route was round the Cape of Good Hope, or by the perilous circumnavigation of Cape Horn, where storms and baffling winds or calms imperilled the voyage of the sailing ships. It is only by remembering these old circumstances that one can understand the severity of the commercial glut, and consequent crisis in prices, which overtook both Australia and California in the early years of the gold-discoveries. The tidings of the exorbitant prices prevalent in the gold-countries induced the merchants of London, Liverpool, and New York to strain every nerve to send out supplies. In like manner, a merchant in Melbourne, seeing that certain commodities were greatly in demand, while the people were so wealthy that they could pay a high price for them, sent home a large order for such goods. But more than half a year had to elapse between the giving of the order and the arrival of the goods; while the population

was still so few in numbers that their demands, however eager, could be easily met and overtaken by the great commercial emporia of the Northern world. Thus it happened that when the Australian markets had become full, there was a long line of ships upon the ocean still bringing fresh supplies. Moreover, even when the tidings of falling prices reached London and New York, the known wealth of the population of the gold-countries induced the belief that the glut was but momentary (as in reality it was but temporary), and the ever-hopeful spirit of commerce or speculation reckoned that the glut, reported three or four months previously, would have ceased before the new supplies could reach their destination.

At the end of 1853 the import-market in Victoria had become fully stocked ; but throughout the whole of 1854, merchant-ships continued to arrive in the port of Melbourne in undiminished numbers. The inevitable result was a vast depreciation of the imported commodities, and an immense fall in rents and in the value of real property generally. As usual in such crises everywhere, the capitalist had the opportunity of making enormous gains. Buyers for cash could dictate their terms to the embarrassed traders. Goods had to be sold at any price ; and it is recorded that "at the auction-rooms no reference whatever is made to cost-price." Despite the heavy cost of freights and lighterage, and the exorbitant terms charged for store-room, many kinds of goods sold at less than their value in the countries from which they

had been sent. Drapery and piece-goods sold at from ten to thirty per cent below their cost-price in England. The finest champagnes could with difficulty be disposed of at 30s. the case; and good clarets brought barely 15s. or 17s. Brandies of low quality could be had at 4s. 6d. the case; and the best course the importer could take was to re-export them for the British market. As regards commodities of all kinds, in November 1854 the leading journal in Melbourne said: "We strongly confirm our late advices to suspend shipments entirely, until we have a better prospect to report." Bankruptcies multiplied; and, owing to the sudden depreciation of property, the assets in most cases had merely a nominal value, failing to recover the expense of their realisation. House-property, which a year before had risen to an almost fabulous value, suffered an equally remarkable depreciation; and in many cases the rental value of the warehouses fell below the amount of the ground-rent. Alike in commercial and building enterprises in Melbourne, it is contemporaneously recorded that "the losses are of so astonishing a character that they resemble fictions rather than genuine narratives. Fortunes which could have enabled their possessors to sustain for life the dignities of peerage were acquired by plodding tradesmen in the course of a few months; and before they had time to receive the congratulations of their friends, their riches passed away, and they found themselves reduced to utter poverty. Perhaps in the whole range of history [except in California] no

records are to be met with of vast sums of money so suddenly amassed and so suddenly dissipated."

Referring to the vast depreciation in house-property, "which in some instances has been the cause and in others the result of commercial failures," the *Melbourne Argus* (Feb. 1855) quotes the following cases :—"A builder rented a vacant piece of ground at a figure something below £300 per annum, and expended almost £40,000 in putting up a range of spacious and commodious stores, massively built of blue stone. When completed, the stores let readily at from £1000 to £1500 a-year each ; and, judging from the result of this and similar speculations, the owner reckoned himself worth £15,000 a-year, all claims being paid. In twelve months from that date the rental value of the stores fell below the ground-rents, and the owner was utterly ruined." With respect to the commercial losses, the same journal says :—"The amount lost by one firm alone in a twelvemonth, through bad debts, is deliberately estimated to exceed £90,000 ; another firm lost, in a similar period, through the same means, upwards of £40,000. A merchant who, two years since, was regarded as worth £100,000, was recently obliged to pay a small account by his acceptance for a month."

In the latter months of 1853 the wages of labour also fell, and never again reached the very high point at which they stood in the immediately previous year. The Government, threatened with a heavy financial deficit, had stopped the public works ; the gold-fields also were becoming gradually closed

against individual labour ; while emigrant ships continued to arrive in hardly diminished numbers, and a large portion of the new settlers came with the purpose of working as artisans, and in other forms of urban employment. In consequence, the hitherto strange spectacle was witnessed of labourers going about in search of employment, and even as paupers demanding relief ! The fall of wages was general throughout the colony ; but it was only in the towns that this change was severely felt, and the want of employment was in great part voluntary on the part of the workmen. Trades-unions had not yet been formed in Australia, but the spirit of "strikes" was in full existence. In not a few cases workmen preferred to become idle rather than accept the lower rate of wages which had become indispensable,—or, as they said, "rather than aid in lowering wages." The current rate of wages at that time was eight or ten shillings a-day for unskilled labour, which, despite the high cost of living, was good wages for single men, but only sufficient with constant employment for married men living with their families in the towns where house-rent was high.

This severe crisis, and glut of the Australian markets, differed in some important respects from the apparently similar crises which occur in ordinary countries. The fall of house-rents and prices and the glut of foreign goods was not owing to any diminution of production and wealth in these colonies. The mines were yielding annually some ten millions sterling, with comparatively little labour ; so that a large

portion of this amount was really surplus wealth, an annual addition to the capital of the people. The squatters, or pastoral population, also, continued their work of production, with hardly any fall of prices for their commodities in their own markets, and with none at all upon their exported produce. It was only the trading classes who suffered, and the speculators in house-property. Indeed the depreciation of imported commodities was in itself a great gain to the bulk of the population, engaged in actual production, in farming and mining. The crisis was occasioned merely from the supplies from abroad being continued in undiminished quantity long after the Australian market for these goods was fully stocked: a commercial mistake directly attributable to the want of swift communication between Australia and the rest of the world. The gold-colonies were progressing rapidly in wealth; the population was multiplying from the continued influx of immigration. All that was needful to terminate the crisis was a temporary check to the supply of foreign goods. It was to these imported commodities alone that the great fall of prices applied,—the home-produced goods, and the price of agricultural and mining labour being but little affected in value.

By the beginning of 1856 the worst part of the crisis was over. Trade in its various branches began to revive; merchants and shippers began to share anew in the general prosperity. And thus, in the year 1856, the gold-colonies of Australia reached a condition of stable and settled prosperity. There-

after, although they experienced the commercial fluctuations common to all countries, the chequered and peculiar stage of their career was over. The worst—and also the best—effects of the gold-discoveries were alike past.

Among the many advantages in social condition which the gold-colonies of Australia enjoyed over California was the existence of good banks. Banking, of the best kind, had been established in Australia prior to the gold-discoveries. Australian banking was established upon the Scotch system, by wealthy corporations, for the most part having their headquarters in London. These pillars of industry had rendered most useful service from the outset; and they helped the colonies greatly during the exigencies produced by a vast immigration and the turmoil of the gold-fever. Nevertheless, during those early years of gold-finding (as likewise in California), there was a great scarcity of money. And a most striking proof of this scarcity is the fact that gold in Australia was worth only sixty or even only forty-five shillings the ounce, in exchange for money, whether coin or bank-notes. An ounce of coined gold (or its equivalent in bank-notes) could buy an ounce and a quarter of uncoined gold in any quantities. It was fortunate for the population that their chief produce (gold) was, of all commodities, the nearest akin to money. It is the raw material of money, yet hardly more serviceable as money than a hide is to a man who wants a saddle or a pair of leather breeches.

A scarcity of money is always very adverse to the producing classes. It was so even to the gold-miners, who (although gold-dust was more exchangeable than ordinary property) had to exchange their produce for a fourth and sometimes a third less than its fair and ordinary value where money exists in adequate quantity—or, in other words, where gold possesses its ordinary purchasing power. How much more adverse to the general interests would such a scarcity of money have been, had the staple produce of Australia been other than the precious metals? Production in such a case would have been so largely deprived of its profits that it would speedily have ceased, however profitably it could be carried on under other and ordinary circumstances. But gold can be exchanged for money more readily than any other commodity; and the gold-fields were then so rich, yielding fully five times the value obtainable by an equal amount of labour in other industries, that the Australian miners became wealthy even although their produce had to be sold at much less than its ordinary value.

This scarcity of money in a country abounding in gold, actually produced from the mines, may at first sight appear a strange phenomenon. Especially it may be asked, When gold was brought to the banks from the mines, why did not the banks purchase it, when they could get so large a percentage of profit, seeing that their coin or notes could buy 30 per cent more gold than such money could buy elsewhere throughout the world? Had the banks been able

to purchase it, the scarcity of money in circulation would have been at an end; for there was an abundance of gold ready to be offered to the banks, and the coin and notes obtained in exchange for that gold would soon have been sufficient for the monetary wants of the population. Gold would have risen to its ordinary world-value: and thereupon the banks would have had no longer an inducement to buy it; while the gold-owners (their monetary wants being supplied) would have no longer had any necessity to make further exchanges of this kind. The gold not needed for home circulation as money would have been exported—as nearly the whole of the gold from the mines was actually exported—in the form of bullion, which is the most convenient or profitable form for gold as merchandise.

How was it, then, that this very natural procedure did not take place, or at least but sparingly? How was it that there was, for several years, a scarcity of money in the Australian gold-colonies; and that a considerable quantity of gold from the mines was retained in the country for currency purposes, and yet carried only three-fourths of the value which the metal possessed throughout the world at large? The difficulty which then existed in Australia may be explained in a single word: there was no Mint. The scarcity of money arose in this way. Gold coin, together with bank-notes convertible into coin on demand, constituted the money, or sole legal currency, of Australia, as of our own country. And the banks held no more, or little more, money than was

requisite to carry on their ordinary amount of business. Being so circumstanced, had the banks bought gold with their coin, the stock of coin would have become too small to meet the demands of their depositors or customers; and as they could not pay their creditors in gold-dust or in bullion, the banks would have been liable to bankruptcy. If they had bought the gold with their notes, the sellers of the gold might immediately thereon have demanded payment for the bullion in coin, and so have at once deprived the banks of their profit in the transaction, besides actually imperilling the solvency of the banks, which had no spare coin to meet such a demand. Moreover, even if the general creditors of the banks, whether note-holders or depositors, had been willing to accept uncoined gold, of course at its then current value in the colony, the banks would have obtained no profit; because the bullion, or uncoined gold, would have carried no higher value than the coins with which the banks had purchased it.

But, it may be said, the Australian banks were banks of issue, and could issue notes to any amount which they might deem advantageous: why, then, did they not make purchases of the gold with their notes? As a matter of fact, it is highly probable that the banks might have done so with safety to themselves, and, if so, with a large profit, while also greatly benefiting the community by supplying the monetary wants of the country. As money was greatly wanted, it is probable, or indeed certain, that the notes thus issued would have re-

mained in circulation. So long as the credit of the banks was stable, the notes were quite as good as coin, and therefore there would have been no motive for any one cashing them ; that is, demanding coin in exchange for them. But there was a *risk* in such procedure, and all unnecessary risks ought to be shunned in banking. Also, although the banks might have made large profit from buying the gold with their notes, with the result of supplying the monetary requirements of the public, it is also true that a scarcity of money enables banks to charge a higher rate for their loans and discounts. They are the reservoirs of money, which they issue to the public through loans or the discounting of commercial bills ; and in proportion as the currency which they supply is scarce, the banks are able to raise the rate of discount, or, in other words, their charge for supplying this currency. But the fundamental explanation and ample justification of the Australian banks in this matter is, that the purchase of gold, under the circumstances, would have been substantially a trading operation beyond the proper sphere of banking. Except in degree (for undoubtedly gold is more negotiable than any other thing, except money itself), the purchase of gold by the banks would have been similar to an investment of their money in any commercial commodity. Their money would have been "locked up," just as if they had bought a stock of wheat or wool. Their wealth would not have been diminished—it might have been considerably increased ; but their stock of money,

the special commodity in which banks trade, would have been greatly reduced, proportionately lessening their power to meet the demands of their customers, as well as imperilling their own solvency.

This dilemma for the gold-producers and the general monetary difficulty, although much felt in Victoria, was experienced still more severely in the adjoining province of South Australia. While gold-bullion in Victoria sold at sixty shillings the ounce (instead of its normal or world-value of £3, 17s. 10½d., or, allowing for loss of interest in the process of minting, at £3, 17s. 9d.), in South Australia it sold, or was convertible into money, at the rate of only forty-five shillings the ounce. . This great difference of price was owing to the weaker or less efficient position of the banks in the latter province or colony. The South Australian banks held only a small stock of coin, and therefore were less able than their competitors in Victoria to supply currency by the issue of bank-notes. The hardship and general embarrassment in South Australia became so great that the legislature of that colony, in June 1852, established a Government Assay Office, at which the possessors of gold-ore could get their bullion converted into stamped bars. By a temporary Act (for one year) these assayed gold-bars were legalised as currency at seventy shillings the ounce—still considerably under the proper value of gold, as in other countries; and the notes of the banks were made a legal tender to third parties (that is to say, throughout the community)—but not at the banks, which were bound to

cash the notes on demand, either in gold or in the stamped gold-bars. This Act brought a great relief. The scarcity of money was at an end. The banks bought gold-bullion in the form of the assayed and stamped bars, largely issuing their notes in purchase or exchange, and thereby supplying the wants of the public for suitable currency. In this way the note-circulation of the South Australian banks rose from £97,000 in January 1853, when the Act came into operation, to £232,000 before the end of the year. This fact shows how severe had been the dearth of currency in this small community. As the notes were issued in exchange for bullion, they were well secured,—gold going into the banks as the notes went out. In fact, contemporaneously with this increase of £130,000 in the note circulation, the bank-reserves largely increased: the increase, of course, being made not in coin, or money proper, but in the stamped gold-bars.

Notwithstanding this important remedial measure, the hardship to the mining population, or the gold-producers, was still serious. They had to part with their gold at about one-fifth less than its normal value, such as it carried in England, New York, Paris, and generally throughout the world. Thus their produce or property was artificially depreciated. Could the gold have been coined or converted into money on the spot, it would have at once attained its full value. Had there been a Mint in Australia, the gold-produce of the country would have carried its normal value, with commensu-

rate profit to the miners, and indeed to the country at large. Very naturally, then, a general demand arose for a Mint. It was very hard upon the miners that their produce should be, as it were, artificially depreciated; and it was hard upon the whole Australian colonies that, although suffering severely from the dearth of currency, they had to send their gold eight thousand miles to London and back again before they could get their gold converted into coin. At length, yet not without demur, this most reasonable and urgent demand was granted by the Home Government. A Mint was established at Sydney, —the oldest and, at that time, still the largest city in Australia; and before the end of the year two millions sterling of coin were issued.

We have dwelt with considerable detail upon this monetary crisis in the Australian colonies, because it is pregnant with important lessons, inculcated and illustrated by very striking and also plainly intelligible facts. It shows how largely dependent is the value of gold upon the fact of its being the substance, or raw material, of money. In proportion as the yellow metal fails to become, or falls short of attaining the quality of money, its value falls greatly. In most of the leading countries of the world, there is a State Mint, ready to coin (usually free of charge) any gold that is brought to it. In such countries, accordingly, gold, being immediately convertible into money at pleasure, carries the same value, whether in the form of bullion or of coin. But the case, as we have seen, was different in Australia at the

outset of the gold-discoveries. There were gold-dealers and private assayers in Australia; and, as likewise in California, gold-dust served to some extent and in rough fashion as a medium of exchange,—but always adversely to the owners of the gold-dust, who never obtained for the gold its proper price, or full value in exchanges so made. Even in the form of ingots, or the officially assayed gold-bars, the precious metal did not carry its proper price, or world-value, because such lumps of gold were quite unsuitable for retail payments, or in the daily purchases of ordinary life. What is more, not even the banks could give the full or proper value for these gold-bars: they could not buy the gold even with notes of their own issuing, because they were bound to pay or cash the notes on demand in legal money,—for which purpose these gold-bars, of course, were not available, until a special Act was passed temporarily legalising these bars as currency.

Further, no other set of circumstances could so clearly demonstrate and strikingly illustrate the vastly important influence of Time as affecting the great law of supply and demand. When the Australians petitioned the Crown to extend to them the royal prerogative of coining money—a right which all Governments properly keep in their own hands—the project of establishing a Mint in Australia was strongly opposed by some very able men in this country, who maintained that such an establishment, besides being open to objection, was quite unnecessary; and that the want of currency would be and

should be remedied, like all other wants, by the natural operation of the law of supply and demand. But these upholders of "economic science" overlooked the element of Time, and the dire consequences which must ensue before their law could come into effective operation. No doubt, even without a Mint, the Australian colonies would by this time have become supplied with an adequate currency. They would have supplied their lack of coined money just as they supply themselves with foreign commodities of any kind,—namely, in exchange for the surplus produce of their own country. And they had been so doing. But, owing to the marvellously rapid increase both of population and wealth, and the vast remoteness of Australia from the great centres of civilisation and production, the processes of trade or exchange could not operate as rapidly as was requisite for the requirements of the community. Merely because it could not be coined upon the spot, gold, as we have seen, was selling at only two-thirds of its proper value. Thus the mining population, the producers of gold, which was then the chief product of the country, were deprived of a large portion of their just profits, entirely because they had no means of utilising the produce of their labour by applying it to its normal use—viz., as money. And further, the entire community suffered from the dearth of currency. Not merely gold, but, even more, goods, houses, land—in short, property of all kinds—was abnormally depreciated, on purchase or in exchange; simply because money, owing

to its deficiency, there bore a far higher value than it did elsewhere in the world. Hence the Australians were ready (under this compulsion) to sell their produce to foreign buyers at much less than its fair or normal value—a loss to the Australian community; while in purchases or exchanges amongst themselves, although there was no loss to the community as a whole, there was dire loss and even ruin to individuals; and such fluctuations in the value of goods and property were both morally and industrially injurious to the best interests of the community. Truly, this was a strange dilemma and social phenomenon in a country like Australia. What can be more strange, at first sight, than that there should be a dearth of money, and a severe social crisis in consequence thereof, in a country whose chief and marvellously abundant product was gold, pre-eminently the canonised metal which constitutes the money or currency of mankind; and yet such a dearth, with equally disastrous consequences, overshadowed the fortunes, at one time or other, both of Australia and California, and has left a lesson of no small importance to the world at large.

A very large portion of the intellectual mistakes of mankind arises from an implicit reliance upon some widely known and well-established rule, maxim, or principle, without making allowance for circumstances and influences which at times obstruct the operation of the deservedly venerated or appreciated principle. The law of supply and demand is a principle or doctrine of this kind. It is in itself rather a

truism than a truth. It is no discovery of modern science; indeed, its general correctness has been visible to men of all times and of the most commonplace intellect. The earliest trader, even the simplest rustic who drove his pigs or sheep to market, knew that the fewer the pigs or sheep in the field, and the more numerous the intending purchasers, the higher would be the price he could ask for his wares. Equally true is it, when the maxim is applied to general affairs, that if any commodity be scarce, and consequently its price exceptionally high, in any locality, men of other countries, or in other parts of the same country, will hasten to supply the scarcity in order to obtain a higher price for their goods than they could get elsewhere. Further, as the earth is still capable of yielding produce of all kinds sufficient for the wants of mankind, a scarcity in one part of the world will ere long attract a supply from other quarters. Yet in human affairs how much depends upon Time! Men suffer or die under the scarcity: and what consolation is it to them that the supply which they needed will come in time for other men or another generation? Moreover, it is upon the current wellbeing of its people that depends the power or prosperity of a State or community. In a new State, especially, rejoicing in the vast resources of a California or Australia, every season of hardship, every generation or part of a generation which is robbed of its gains by some exceptional calamity, constitutes a serious drawback upon the general progress and common wellbeing.

The monetary dilemma of 1855 was the last of the peculiar crises which characterised the early and transitional period of the Australian colonies. Thereafter Australia entered upon a career of mature progress. Several times since then it has experienced commercial crises of more or less severity; but these have been simply the ordinary vicissitudes, the "ups and downs," common to every settled country, and even most frequent in those countries where material civilisation has been most fully developed. By that time, too, the Australian colonies of Old England acquired the readily granted boon of self-government. Local parliaments and ministries, under the titular rule of a Governor appointed by the Crown, undertook the administrative work and responsibility which had previously been borne by the Colonial Office in London. The youthful romantic period of Australia was over; but those five years, full of feverous excitement of a golden youth, constitute a romance in the history of the world, and also have permanently shaped the fortunes of these young colonies. Blessed with a population wellnigh homogeneous in race, yet naturally varying widely in social position and individual sentiments, alike of religion and politics, the wild rush after gold brought all classes so intimately together in the common pursuit, that each became thoroughly tolerant of the others, and the population became blended in common sympathies, and wisely tolerant where they continued to differ. In politics, of course, there is the active and critical spirit which distinguishes the British race; and the

Houses of Parliament at Melbourne and Sydney exhibit the keen partisanship with which we are only too familiar at home. There are "burning questions," too, in Australia as well as here; but it is an enviable fact that there is less of racial divergence and dispute than there is in the United Kingdom, which has a perpetual difficulty in the unfused Celtic peasantry of Ireland.

Of the two great and purely British settlements in the Southern hemisphere, viz., Australia and New Zealand, the latter is by far the most British-like in its physical conditions. Alike in size, shape, physical features, and geographical position, New Zealand closely repeats in the Southern hemisphere the characteristics of the parent Isles in the distant North. A land of hills and valleys, and thoroughly insular, blessed with a temperate climate, ever freshened with the sea-breeze, it is in New Zealand that the rosy cheeks and bodily vigour of the British race will be longer perpetuated than in any other region of the world. Indeed, there is no apparent cause why the pure English stock should ever become much altered in that eminently favourable locality. Its chief towns, Wellington and Nelson, Canterbury and Dunedin, may be headquarters of the British race in far future times, when the parent land from whence these names were transplanted has long ceased to be the leading country of the world. The transplanting of British names over the face of North America, and also throughout the Southern Ocean, is one of the most significant events in modern history. Some

writers have held that when the Athenians of old called themselves "Autochthons," it was merely a remembrance, in course of time misunderstood, of the Attock-land, from whence these wandering Aryans are supposed by those writers to have started on their westward migration. With the full light of history now blazing on the world, the British names, now scattered and so prominently figuring over half the world, can occasion no such confusion of records or ideas. Nevertheless, were some new Avatar-like irruption of barbarism to sweep over the seats of civilisation, learned men in the far future, groping amid the half-lights of a new Renaissance, might be gravely bewildered by the various Bostons, Yorks, Portlands, Canterburys, and other town-names which the far-roving Briton has conveyed into the new lands of his settlement.

While New Zealand is an exact southern counterpart of the British Isles, the island-continent of Australia is in the main as unlike the parent country as can well be imagined. Nevertheless, the narrow littoral belt which fringes Australia on the south-east presents no great diversity of aspect to the British immigrant. That narrow coast-region, between the mountains and the sea, is cut into hill and valley by the spurs from the Coast Range, between which flow rivers and rivulets, while the coast is finely indented with plentiful bays. But for the "hot wind" from the north, the climate differs little from that of the south of England. But follow the "hot wind" to its home; surmount the Coast Range,

and then one comes upon a region of vast plains, extending northward to the distant Gulf of Carpentaria. Despite the heroic explorations of Burke and Leichardt, the interior of Australia is still imperfectly known, except that it consists of a vast region of levellest plains, in great part waterless and arid in the summer months. Yet along the long course of the Murray River, and also in many other parts, these wide plains are grassy and verdurous—one of the finest pastoral regions in the world. Thus Australia has two distinct regions, fitted for entirely different forms of industry and of social life. There is the commercial and urban region of the coast, and the pastoral townless regions of the interior. It is as if the steppes of Russia or of Upper Asia were in contiguity with the sea-indented lands of Britain. Lacking our rich and abundant mines of coal and iron, the Australian coast-region can never equal the mother country in the sources of commercial and manufacturing power; but in the fertile plains of the interior, Australia has an all-sufficient source of food-supplies, and amplest scope for the free and vigorous pastoral life, where civilised nomads, ever in the saddle, rear flocks of sheep and herds, both of cattle and horses, far in excess of the wants or consuming power of the Australians themselves; thereby giving a foreign trade to Australia, while helping to sustain with the necessaries of life the dense centres of population and civilisation in the Northern world.

One of the characteristics of Australia is of itself a proof that the original settlers came from a land of

highly advanced civilisation. City life is fully developed; and Melbourne, the capital of Victoria, as also in lesser degree its rival, Sydney, may, albeit creations of yesterday, well compare with the chief cities of the mother country. Melbourne justifies its title as the London of the Southern hemisphere. When Governor Bourke first visited the nascent settlement on the Yarra-Yarra, he fixed its site on two hills sloping down to the river, on its northern bank; and the rectangular space which he then marked out—about a mile in length on the banks of the river, by half-a-mile in width—still forms Melbourne proper, the busy heart of the Victorian metropolis, and now holding much the same place in it as “the City” does in London. For Melbourne has far outgrown these original limits, and now spreads over adjoining eminences; so that it claims to be, like the city of Romulus, built upon seven hills. These “suburbs” are largely interspersed with fine parks and recreation grounds; and the main streets (each a hundred feet wide) which run parallel with the Yarra-Yarra river, are being planted with trees. The eminences of the city, which are crowned by the University and other prominent edifices, command a fine view of the rugged summits of the Coast Range,—thereby giving to the city the æsthetic advantage of a distant horizon. Melbourne now possesses a population of 270,000 inhabitants. A large and elegant suburb has lately been built on the south side of the river—which, by an Irishism, may be styled the West End of Melbourne,

where stands the fine structure of the Government House, and where the beautiful Botanical Gardens rise in verdurous terraces from the banks of the river. The course of the Yarra-Yarra is broken in the middle of the city by a basaltic dyke, called "The Falls," which stops the upward navigation from the sea. Above that point it is a pleasure river; and the picturesque, wood-clad upper reaches, gay with boats and pleasure-parties, remind one of the Thames between Kew and Hampton Court. Ships of considerable size can come up into the middle of the city; and Flinder's Street, which runs along the strand of the river, is occupied by large warehouses, and exhibits the usual features of a sea-port locality. The whole city is solidly built of brick and of the "blue stone" of the district,—which in reality is lava. The old wooden fabrics have all been cleared away, and the chief streets—Collins Street and Bourke Street—might almost be taken for parts of London; the former being the Oxford Street and the latter the Edgware or Tottenham Court Road of the Victorian capital. Immediately below the Falls, a long range of wharves extends for about a mile along the north bank of the river, used almost solely by intercolonial sailing vessels and steamers, especially the colliers. On the opposite bank are ship-repairing yards, foundries, and many other factories,—also a notable crane capable of lifting fifty tons from vessels berthed alongside. Melbourne, as thus said, does not stand on the sea-coast, but a short railway connects it with

Brighton Reach, on the beautiful and rural-looking shores of the Bay, which, in the Australian summer—notably on our Boxing-day—are the resort of picnic and pleasure parties, and thousands of people are seen strolling and amusing themselves, as well as bathing in the bright and bracing waters.

Such is Melbourne, the London of the South. Its seaport is Sandridge, on Hobson's Bay, where two well-fitted piers stretch their arms a long way into the sea, affording berths for vessels of the largest size, and shelter for a whole fleet. But Melbourne has not a monopoly of Port Philip Bay, which is an almost landlocked natural harbour some forty miles across. On the opposite side to Melbourne stands Geelong, which at one time might have risen into the commercial premiership now held by Melbourne. At both places a sand-bar originally obstructed navigation, but Melbourne quickly dredged away its bar, while Geelong is only doing so now, when any hope of rivalling Melbourne is out of the question.

The Melbourne people, we may add, like the Australians in general, are pre-eminently a people of amusements. They are as lively at play as they are steady and energetic in work. Nor do they, as the English are said to do, take their pleasure sadly. Every town of any pretensions has a race-course and one or more cricket-grounds. "Holidays are frequent, and are largely availed of by all classes of people. And really a Victorian holiday is something to see; for in no part of the world perhaps can so orderly, so well dressed, and so evidently well-to-

do a body of people be found as may be seen, hurrying by road, rail, or steamer to picnic, review, race-course, cricket ground, or what not, at holiday time. The outdoor amusements most affected are horse-racing and cricket, and after them football, bowls, rifle-shooting, boating, hunting, and the newly imported games of polo and la crosse. Roller skating is also a fashionable amusement, there being numerous rinks in the colony; and Melbourne has a fine hand-ball court, which is extensively patronised."¹ Aquatic recreations, too, such as boating and rowing, are popular,—as need hardly be told to Londoners who have admired the fine sculling of Trickett and Laycock.

Let us now sum up the rare and romantic progress of Australia during the last thirty years, under the potent influence of gold. We can fittingly do so, because the rich gold-mines which gave to these young colonies their giant-like growth, have ceased to be the paramount, or even the main element of their still-growing prosperity. Throughout all these colonies, the conditions of social life and of industrial progress have now become similar to, if not quite identical with, those of the civilised world at large. Capital has resumed its place as the life-spring of labour and enterprise. Associated labour, under the leadership of capital, has supplanted the fervid and fitful individual enterprise which at first sufficed to reap ample profits by rude toil on the gold-fields, and even in the comparatively settled

¹ *Handbook to Victoria*, p. 94.

business of urban and commercial life. The gold-mines of Australia, like those of California, are now worked on the Old World system of organised labour, and substantially under the same industrial conditions as the coal-pits of Durham and Lanarkshire. A remnant of the old adventurous gold-seekers—men ready for any toil and hardship, but hating regular employ or the control of a master—is still to be found in Australia; but these now old-fashioned adventurers are only to be met with on the outskirts of settled life, or far beyond them, wandering and “prospecting” amid the domain of the aborigines, in the hope of finding new gold-beds, where their hardy enterprise may win anew the never-to-be-forgotten earth-spoils of the vanished past.

The four “colonies,” or young States, which compose Australia, differ very widely from one another alike in geographical character and in the agencies which have influenced their growth. Some of these States, indeed, are in most respects the very opposite of the others; and all of them, more or less, have benefited by the potent influence of the gold-mines. But figures and statistics are repulsive to the general reader; and as our main purpose is to exhibit the peculiar action of rich gold-mines upon a country’s career and prosperity, we shall restrict our statistics of growth chiefly to the colony of Victoria, whose career has been pre-eminently influenced by the golden treasures of which it has been the chief seat.

Victoria is nearly (not quite) of the same size

as Great Britain, having an area of somewhat more than 88,000 square miles; yet it occupies a mere corner of the Australian continent, which is about thirty-three times as large,—or, in round numbers, has an area of three millions of square miles. The population of Victoria, which was but a few scores in 1851, when the discovery of gold was made, is at present about 900,000; and happily, now as from the first, there is no great disparity of the sexes,—the males, in June 1879, numbering 482,769, and the females, 404,665. The population of its capital, Melbourne, at the same date, was 256,477. There are upwards of fifteen hundred miles of railway already at work in the colony, besides other lines in course of construction; and good roads, traversed by stage-coaches, supply the means of communication throughout the province in those parts not yet visited by the “steam-horse.” There are also, within the limits of Victoria, about three thousand miles of telegraph lines. The new State has resolved to acquire the attractive diversity of industry and enterprise which characterises all fully settled countries; and naturally enough, although in defiance of the Economists, it has boldly entered the field of manufacturing productions. At the last census Victoria contained 2343 factories of various kinds, employing 32,278 work-people; and the capital thus invested in buildings, machinery, and ground amounted to £6,800,000.

The total quantity of gold “raised” in Victoria, from the beginning down to the end of 1878,

amounted to 48,058,649 ounces, valued in money at £192,234,576. And chiefly owing to the effects of the wealth arising from the cheap attainment of so large a quantity of produce of the most exchangeable kind, the foreign trade of Victoria has increased in annual value from one million sterling of imports, at the time of the gold-discoveries, to sixteen millions sterling in 1878; and from less than 1½ millions sterling of exports to just upon fifteen millions. It is curious as well as instructive to mark the annual amount of exports and imports per head of the population at various periods. It was in the middle of 1851 that gold was first found, and in that year the imports of the State of Victoria amounted to rather more than £12 per head of the population, and the exports to £16, 7s. 9d.; in 1878 the imports per head were £18, 12s. and the exports £17, 3s. 5d.—an increase of only one-half in the imports and hardly any increase at all in the exports: a fact explainable mainly by the vast decrease in the produce of the gold-mines. But in the intervening period, when the gold-fields were at their best, the amount of the foreign trade, in proportion to the population, was remarkably large. For example, in 1852, the imports suddenly rose to upwards of £30 per head of the population; while the exports rose to £56 per head. In 1853 the imports per head of the population were no less than £81, and the exports £56, 12s. 4d.—a state of matters wellnigh without a parallel in history. In 1854 the imports per head amounted to £66, and the exports to £44;

and since then the ratio of foreign trade to population has continued to decline.

Of New South Wales—the other Australian colony which possesses auriferous treasures, albeit much inferior to those of Victoria—we may simply state that its foreign trade, which was hardly existent previous to 1851, amounted in 1878 to thirteen millions sterling of exports and not quite fifteen millions of imports. It has about seven hundred miles of railway open to traffic; and, while the gold-fields are becoming exhausted, there are now twenty-eight coal-mines, the annual produce of which is valued at a million sterling, and promises to increase. Recently, gold has also been found in Queensland; and it is believed that Australia still contains a large extent of undiscovered gold-beds.

It might be tedious were we to chronicle further details of Australian progress—the total tons of gold which have been exported to support the ever-growing trade of the world, the millions of sheep, the myriads of horses, and the hundreds of thousands of cattle now reared upon the grassy plains of the interior, or even the number and tonnage of the ships which annually enter and leave its seaports upon ocean-voyages. Yet it is important to note how great has been the industrial and commercial effect of these new States of the South upon the long-civilised countries, and their busy hives of population in the Northern hemisphere. Long lines of shipping in well-established trade-routes now traverse what were previously the wastes of the Southern

Ocean,—where ships used to be as few in number as are, now and for ever, the stars in the azure expanse of the southern sky, where the brilliance of the Southern Cross owes one-half of its fame to the starless solitude amid which it shines. The new Australian world reacts magnet-like upon the ancient and vast world of human life in the Northern hemisphere, stirring its life with a new and fresh impulse. From our own Isles, nigh twenty millions' worth of goods are annually conveyed across the ocean to the island-continent of the South. The wants of Australia give employment and the means of subsistence to tens of thousands of workers in the seats of old civilisation. They keep men profitably at work at the loom or the forge both in England and in the Eastern States of North America; and even the Chinaman and the Hindoo finds his labour on his five-acre farm, whether its produce be tea or rice, more profitable to him on account of the demand for his produce which comes from these prosperous communities in the far-off southern seas.

Such, in broad outline, has been the vast and rapid growth and striking concomitant changes of condition, alike industrial and social, which the present generation has beheld, with wondering and also thoughtful eyes, in the great island-continent of the Southern hemisphere. When Gold, the great and only magician of modern times, first uprose in the sight of mankind, like the Australian Genius of Progress, on the plains of Ballarat, a splendid career was inaugurated for those new settlements of

the pure British race at the Antipodes. Instead of remaining a pastoral and thinly peopled country, far remote from the centres of human civilisation, the potent attraction of gold at once brought across the oceans of the world a flood of immigration from the parent isles of Britain ; while commercial navies arrived from all parts of the globe, in exchange or return for the golden argosies from the young and previously isolated island-continent of the Southern Ocean. Instead of a mere land of squatters, great cities arose, and the intellectual urban life alike quickens and elevates Australian society ; and at length Australian industry and enterprise have become as various in character and manifestations as in the old and fully developed communities of the Northern hemisphere.

And all this has happened within the last thirty years—a mere day in the life of nations. This brilliant epoch of progress—the Golden Age of Australia—has already come to an end, although it will long bear fruits, and has imprinted its impress indelibly upon Australian history. The yield of the gold-fields has for many years been declining ; and although we do not question the official reports as to the existence of auriferous tracts still untouched by human labour, gold-production will never more be paramount in the commercial and industrial fortunes of the country. Gold-production still remains, and for a good many years may continue to be, a valuable item of the national resources ; but its glamour and its glory are past and gone ; and

hereafter mankind will no more rush to the Antipodes on account of Australia's gold than they will flock to the British Isles on account of our more valuable seams of coal and beds of ironstone.¹ The Golden Age proper—the period when gold-finding not merely yielded its peerless and romantic harvests of wealth, but presented its socially and economically peculiar features—lasted in Australia, as in California, barely half-a-dozen years. But that period, brief as it was, has been one of the most important as well as romantic in the history of material civilisation. We, its contemporaries, have watched it eagerly and with marvelling eyes; and, with an enduring interest, the history and incidents of that time, that Golden Age—exhibited contemporaneously in California and Australia—will not fail to be studied by the philosophers and scientists of future and probably long-distant generations, as a strikingly illustrated compendium of some of the most interesting and important questions in monetary and industrial science.

¹ As shown in a recent Report by Mr Hayter, the able Government statist for Victoria, the remuneration of the gold-miners has entirely ceased to be a matter of envy. The value of the gold obtained in 1880 per miner was a trifle under £82, representing only about twenty ounces; but as Mr Hayter points out, the common assumption that this indicates the digger's "average earnings" is a fallacy,—the fact being that a very large proportion of the miners are merely *employés* of companies and others using expensive plant, and are therefore working at wages, which necessarily average considerably less. Yet the number of men who are content to follow this branch of Colonial industry amounts to 38,568, which, though much less than the 63,787 who were at work in 1869, is still a large number in a population of only about 800,000.

STATISTICS OF THE AUSTRALASIAN COLONIES IN 1860.

Colony. :	Area in Sq. Miles.	Population.	Colonial Revenue.	Debt.	Imports.	Exports.	Imperial Expenditure.
			£	£	£	£	£
N. S. Wales .	323,437	365,635	1,308,925	3,819,730	7,519,385	5,072,090	44,339
Victoria . .	86,881	548,944	3,089,084	5,118,100	15,093,730	12,962,704	86,557
Queensland .	678,000	56,000	178,589	..	742,023	709,598	..
S. Australia .	383,328	126,830	438,827	870,100	1,639,591	1,783,716	6,836
W. Australia .	978,000	15,691	60,741	1,750	169,074	89,346	37,831
Tasmania . .	26,315	90,211	268,458	389,860	1,005,602	1,024,979	41,118
New Zealand .	106,259	155,070	464,783	479,044	1,548,333	588,953	104,852
	2,582,070	1,358,381	5,759,312	10,678,584	27,717,638	22,231,216	271,028

—Return presented to Parliament on 27th March 1863.

STATISTICS FOR THE YEAR 1878.

Name of Colony.	Rate of Taxation per Head of the Population.	Value of Imports per Head of the Population.	Value of Exports per Head of the Population.	Value of Trade per Head of the Population.	Population in 1878.	Increase since 1873.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		
S. Australia .	2 2 8½	23 10 3	22 0 8½	45 10 6½	248,795	25 p. c.
N. S. Wales .	1 18 7½	21 15 8	19 3 6	40 18 1½	693,748	24 p. c.
Victoria . .	1 19 10½	18 11 11½	17 3 6	35 16 5½	879,442	11 p. c.
New Zealand .	3 12 5	20 13 6½	14 4 1½	34 17 7½

—Official Statistics of Australia.

CHAPTER VI.

LIFE AT THE MINES.

WE have now told in broad outline the tale of the grand Gold-hunt of the Nineteenth century, and its immediate results. Other gold-mines will doubtless be discovered in the future, and possibly, yet not probably, even as rich as those of California and Australia. But even were this to happen—were the world to experience a second Golden Age, equally magnificent as the first, it is impossible that this recurrence should be accompanied by the more striking and peculiar incidents and features which attended the gold-finding of the recent time. It is worth while, therefore, to preserve some details of this grand and memorable Gold-hunt, such as would have encumbered the narrative in the two preceding chapters, as well as to bring together anew some matters which will serve to show compendiously the general impress and features of Life at the Gold-Mines.

It was a very hard life,—mankind never voluntarily chose a harder one: a fact which, at the outset,

brings into notice the peculiar fascination, the well-nigh magical attractions, of Gold as an object of human search and desire. In truth, like the sun and the moon, which in their respective colours they resemble, Gold and Silver sway the movements of human life as potently as those orbs of heaven sway the tides of the ocean. In Noel Paton's famous picture of the "Pursuit of Pleasure," a beautiful goddess-form, floating in air, draws after her a crowd of devotees, representative of all classes of men—youth and age, student and merchant, priest and warrior—rushing on pell-mell, trampling one another under foot in their hot pursuit of the alluring phantom. Gold, alike as the sparkling yellow ore and in the representative forms which it assumes as Wealth, exercises a similar fascination for mankind at large. It is the magical *Open Sesame* alike to Pleasure and to Power; and it has its special devotees on the Exchange and in the counting-house, as well as on the plains of Ballarat and in the gulches of California.

Nor yet can it be said that the attractions of Gold are greatly in excess of the hardships of the search for it. Some such sentiment, doubtless, has already occurred to the reader when perusing, or even glancing over, the narrative of the first settlement of the new Gold-countries. But if this be so now, how much sterner was the same truth in earlier and ancient times! Of late years men have stumbled, amid the forest-covered hills of the Wynaad and Mysore, upon the old gold-mines of Southern India; and English companies have reopened the old work-

ings by means of the capital and machinery of this present time. Yet could we look back upon the old times, and re-people the scene with the labourers toiling in these long-abandoned workings—excavating the tunnels, shafts, and trenches, crushing the hard quartz-reefs, roasting the ores, or hollowing out the channels wherein the indispensable water-supply was brought to the spot from neighbouring stream-lets and springs,—all by rude manual labour, and doubtless under pitiless taskmasters, who, *more Indico*, resolved to make a good profit for themselves while executing the commands of Native Prince or Rajah: could we, by spell of wizard more potent even than Gold, call up for brief moment the vision of that ancient gold-seeking, we should probably recoil from the scene, and opine that the famous gold-wealth of ancient India was too dearly purchased by the fatal toil of the unsharing workers.

Ancient India was pre-eminently the Unhistoric country of the civilised world, — a land where, despite gorgeous Courts and a bright intellectual development, the human mind cared nought for a continuous or systematic chronology, nor the maintenance of its own history,—leaving for later times no written records of its greatness, save scattered fragments and traditions wherein facts and fables are inextricably and hopelessly intermingled. But in another country of the Ancient World, and one of much older civilisation, we can still see what gold-seeking was in those early times. Egypt has left its history and the features of its civilisation upon its

monuments, which have outlived for ages the wonderful people and mighty monarchs who erected them. Diodorus says that "on the confines of Egypt and the neighbouring countries there are parts full of gold-mines, from which, with the cost and pains of many labourers, much gold is dug. The soil is naturally black, but in the body of the earth there are many veins, shining with white marble and glittering with all sorts of bright metals, out of which those appointed to be overseers cause the gold to be dug by the labour of a vast multitude of people. For the kings of Egypt condemn to the mines not only notorious criminals, captives taken in war, persons falsely accused, and those with whom the king is offended, but also all their kindred and relations. These are sent to this work either as a punishment or that the profit and gain of the king may be increased by their labours. There are thus infinite numbers thrust into these mines, all bound in fetters, kept at work night and day, and so strictly guarded that there is no possibility of their effecting their escape. They are guarded by mercenary soldiers of various barbarous nations, whose language is foreign to them and to each other, so that there are no means of forming conspiracies or of corrupting those who are set to watch them: they are kept to incessant work by the rod of the overseer, who, besides, lashes them severely. Not the least care is taken of the bodies of these poor creatures; they have not a rag to cover their nakedness: and whoever sees them must deplore their melancholy and deplorable condi-

tion, for though they may be sick or maimed or lame no rest nor any intermission of labour is allowed them. Neither the weakness of old age nor the infirmities of females excuse any from that work, to which they are driven by blows and cudgels, until at length, borne down by the intolerable weight of their misery, many fall dead in the midst of their insufferable labours. Thus these miserable creatures, being destitute of all hope, expect their future days to be worse than the present, and long for death as more desirable than life.”¹

Diodorus adds that the aid of fire was introduced, to facilitate the work of cutting through the rocks in search of the veins. “After thus being able to reach the ores, the workmen had still to contend with the obstacles of subterranean water, of unwholesome air, of the filling of the pits and passages by the earth giving way, and the darkness of the mines. We know not what precautions were adopted against the evil arising from the air and water; but the roofs of the mines were supported by large pillars being left of the natural rock; and in some parts the loose stones were prevented from falling by masonry. At first the only light in the mines was obtained by burning chips of fir-wood: but at length lamps were invented, which are described by a later writer, Clemens Alexandrinus. Oil was burnt in them. Each man [like our coal-miners] had a lamp fixed on his forehead, which turned on a movable basis, in the manner of our sea-compasses. The galleries were

¹ Quoted in Jacob's *History of the Precious Metals*, vol. i. p. 50.

entered not perpendicularly, but by the sides of the mountains; and the ore was brought out on the backs of the men,—slaves being alone employed in the mines.”

In the same manner Theophrastus, speaking of the mines of Samos, says: “Those who dig in the mines cannot stand upright at their work, but are obliged to lie down either on their back or on their sides; for the vein of earth they dig runs lengthwise, and is only of the depth of two feet, though considerably more in breadth, and it is enclosed on every side with hard stone from which the ore is drawn forth.” No wonder, then, that an ancient author should moralise as follows: “Nature teaches us that gold is obtained by labour and toil, is retained with difficulty, and in its use produces both pleasure and grief.”

Some fifteen centuries later, the Carthaginian and Roman mines, like those in Spain, were likewise worked by slaves, who toiled amid the water in the ill-drained galleries, or by rudest labour constructed the deep shafts and long tunnels requisite for exploring the gold-reefs and extracting the precious ores. After other fifteen centuries, when mining for the precious metals was suddenly resumed, but in a far-distant region of which Imperial Rome never knew, no improvement appeared in the hard lot of the miners. Christ had dethroned the Capitoline Jove, and Religion ruled the world from the Vatican almost as imperiously and even more widely than the sway of the Emperors had done. Nevertheless, in the Silver Age, which followed the discovery of a

New World beyond the Atlantic, the fate of the miners, when working for his "Most Christian Majesty," or for the haughty hidalgos of Castille, was as rigorous as if their Lord-paramount had been a Cæsar or a Pharaoh. The gentle Indian tribes whom Columbus found in the Antilles (so different from the fierce Aztecs of the mainland) became speedily exterminated by the tasks of slavery imposed upon them, especially in gold-seeking, by the avaricious Spaniards. The Silver-mines of Mexico and Peru had their victims in still greater numbers. In both of these countries, the *meta* or compulsory labour was imposed upon the native Indian population; and the taskwork, severe in itself, became peculiarly fatal owing to some of the circumstances under which it was carried on. In Peru, for example, the Mines were found far up among the lofty peaks and valleys of the Andes—the silver-mines of Potosi being 14,000 feet above the level of the sea; yet the main body of the Indian workers were drafted away from the warm coast-region, and the change of altitude and the difficulty of working in the rarefied or tenuous air of the mountains speedily wore out the strength and life of the unmuscular and delicately framed natives. In the province of Potosi alone, twelve thousand Indians were annually subjected to the *meta*, or system of compulsory labour; and so fatal was the effect of working in the Mines on the constitution of the native race, that no less than 8,285,000 Indians perished on Potosi and in the other Peruvian mines, between their discovery in

1545 and the end of last century. The vast silver-mountain of Potosi, perforated by scores of mines, and which had yielded about 240 millions sterling before the middle of the present century, had a fearful holocaust of victims. And if, on the dread Day of Ire, when Earth shall unveil her secrets to the Supreme Judge, the dead miners of Potosi were to rise in their myriads on the spot where they perished, the spectacle would be far more appalling than even that which the imagination of the poet has pictured in the "Midnight Review" of Napoleon the Great. Horrid and appalling as has been the sacrifice of human life by military ambition, it falls short of the ceaseless sacrifice of life—and of the health which alone can make life joyous, or even comfortable—wrought by that meanest of human passions, Greed, operating upon, and domineering through, the wants and helplessness of the feebler or less fortunate portion of man's own brethren. In mining for the precious metals, especially, there seems to be a well-nigh persistent fatality of human suffering,—as if, according to the ancient fancy, the Gnomes and Kobbolds and other spirits of the subterranean realms resented the intrusion of greedy Man, and loved to punish and overwhelm the intruders by woful death, through exhaustion and pestilence and the manifold accidents and catastrophes of mining life.

Dire and often death-bringing as were the hardships which have thus beset mining for the precious metals alike in remote ages of the world and in the early times of Modern Europe, that was not all. In

each and all of those cases, the miners toiled not for themselves, but for hard taskmasters who reaped the precious spoil. The Mines were worked either for the State or some of its local governors,—for a native Chief, or in the New World for some of the pitiless Conquistadores of Spain. And even at the present day (so persistent seems the fatality!), what are the gold-mines of Russia, whether in the Ural Mountains or in the solitudes of Siberia,—from whence, prior to 1848, the world was indebted for its chief supply of the canonised metal? These Russian mines are worked on the same stern and merciless system as were the mines of the early Pharaohs. They are chiefly worked by convicts,—dreary and dismal penal settlements, over whose portals might well be written the drear words which Dante saw in his vision inscribed over the gates of his *Inferno* :

“Leave Hope behind, all ye who enter here !”

How different, alike in spirit and in circumstances, was the Gold-mining of the New Golden Age—in California and Australia! Hardships there were in abundance, and sometimes of a severity hardly inferior to those of the earlier times and of other regions. Yet the complexion of the work was entirely different,—most of all in this respect, that the toil was voluntary; that the treasures of Earth were open to all comers; and that each worker enjoyed to the full (whether wisely or not) the fruit of his labours.

Both in California and Australia, the hunt for gold was attended by hardships of a very dire kind. A general account of the gold-hunt in these countries has been given in the preceding chapters; but we may recur to the subject in connection with the peculiar hardships of the enterprise, and the adventurous spirit of the miners. Both in California and Australia, gold-seeking became a profession, attracting the more adventurous part of the population, who never thereafter could settle to the pursuits of common industry. They had come under the glamour of gold, and everything else appeared bald and stale to them. These "old hands" loved to penetrate far into the interior, "prospecting" for new gold-beds. Sometimes they went in small bands or partnerships, but, chiefly, each man went alone, dreaming of nuggets and gold-heaps. In Australia they wandered far and wide over the vast plains, risking death from famine as well as at the hands of the jealous aborigines. In California, partly owing to the configuration of the country, the adventures of these prospecters were still more full of peril and hardship. They might perish at the hands of the Indians, or be overtaken by death from famine or fever, or when caught by the rigours of winter in the mountain-solititudes. Plunging into every gulch or wooded ravine, they ransacked the mountain-slopes up to the very crest of the Sierra;—nay, they often wandered beyond it, into the Great Basin, where the streams having no outlet, sink and disappear amid salt-marshes,—where the air is like a

furnace, and no green thing relieves the arid wastes, — a veritable region of Death. Accoutred with shovel and wash-pan, far too careless of food-supply, and utterly regardless of the vicissitudes of weather, the burning thirst for gold, combined with a not ignoble love of adventure, led the professional Miner recklessly into the most lonely places of the mountains, exploring each pool or sand-bar in the streams, careless though malaria should haunt the spot. And the perils and hardships of this "prospecting" work were doubled when the Miner went forth alone,—in order that if he lighted upon gold, it would be all his own. So employed, these old hands—in California, known as the "Forty - niners" — gradually melted away. Sometimes, although rarely, they were surprised and killed by the still lingering Indians of the Sierra; and oftener they perished from sheer starvation by cold and hunger, when caught in the lonely gulches by the winter snowstorms. Oftenest of all, they fell fever-stricken by the malaria of the dells; dying all alone, miles and miles away from human fellows, by the solitary camp-fire which failing strength could not keep alight. Not seldom the roving Miner—far out of the beaten track, in some locality where, he rejoicingly felt, he was all supreme, and where no human eye could follow him—actually found gold, and in abundance,—lighting upon some rich "pocket" at the bend of some lonely streamlet; whose waters he then turned aside by a dam, and proceeded to rock and wash the auriferous sand,—often toiling up to the waist in water

under a blazing sun in a steaming ravine. At first he would work rejoicingly in the perilous solitude, secure of getting all the treasure for himself. Then, perchance—as often happened,—the head became sick, the malarious fever grew apace, and the muscular arm worked feebly with the simple tools. What then? — had he not been sick oftentimes before? And so he carefully stored, in stout leather bag, the precious dust and sparkling flakes or scales which he shook out of his wash-pan,—and still eyed jealously the auriferous “bar” in the lonely streamlet, flowing quietly beneath him amid the bright green of the malarious thicket. Then he began to loathe food, and grew tired of making the tea and the damper: he would rest, and be stronger in the morning! And the fever grew upon him,—perhaps delirium set in; and when morning came, he was dead, by the cold ashes of the camp-fire, which he had neither the strength nor a care to keep alight. And by-and-by, some other “prospecting” miner came that way,—espied the dead form or the bleaching bones, and the rusty pan and shovel, and the traces of work in the bed of the stream, then flowing freely as of yore. And the new-comer rejoiced at these signs that gold was *there*: sometimes finding and appropriating the gold-dust in the mouldering clothes of his dead predecessor; and probably not giving even a thought to the *memento mori* which there met his eye in the solitude!

In Australia, these prospecting adventures were rarely so perilous, because the country was less wild,

and was far more widely, although thinly, peopled. But in Australia, too, gold-seeking had its victims, by the score, or indeed by hundreds. Let me give one instance of this kind, which a quarter of a century ago I took from the Australian newspapers of the day, and which, although paralleled in fatality, is exceptionally striking in its circumstances.

In the spring of 1854 there was discovered in Australia one of the richest "placers," or gold-beds. The spot was a deep ravine formed by the Buckland River, enclosed by steep mountain-sides which rose like a wall around the narrow winding river-flat, excluding every breath of wind. It was autumn in Australia, although spring here. The air in the ravine was stagnant, and the scorching sun made it intensely hot during the day, while at night the temperature fell to a piercing cold, so that the sojourners in the ravine were alternately in an oven and an ice-house. Moreover, as the gold-beds lay in the channel of the river, the miners worked up to their waists in water. To this gold-field of surpassing richness hundreds of adventurers flocked in feverish haste; but disease, like the fabled dragons and griffins of old, kept sentry over the buried treasures. A peculiar fever, of the typhoid character, was the natural denizen of the spot; besides which, the gold-seekers suffered severely from eye-blight, owing to the concentrated blaze of the sunshine reflected from the steep sides of the ravine; and they were at all times grievously tormented by clouds of flies. Bad diet and want of vegetables aggravated the dis-

eases natural to the place and to the kind of work. In the strangely interesting accounts which then reached us, we read of onions selling at six shillings a pound; and cabbages, which we buy here for a penny, were so precious that they were cut up and sold by weight, from half-a-crown to four shillings the pound being readily paid for them. Physic, or what passed for it, rose in price in a still more startling manner,—Holloway's Pills selling at one shilling each, or a guinea per box. It was a Valley of Death. "Constitutions that had borne the hardships of other fields broke down here," wrote an eyewitness of the scene, "and hundreds have perished, dying unattended and unknown. The little levels between the stream and the base of the mountain-wall, for ten miles along the valley, are so thickly studded with graves that the river appears to run through a churchyard." One new-comer, wiser than the rest, having counted eleven corpses carried past his tent during the dinner-hour of his first working day, and thinking that even gold may be purchased too dearly, left the place instantly. Many abandoned it after a somewhat longer trial. But the greater number, fascinated by the unusual richness of these gold-beds, remained in defiance of disease, and "took their chance" — with what result the numerous graves of the valley may testify to this day.

The temptations of gold-finding, indeed, were so great that even such braving of hardships and peril was perfectly reasonable, or at least easily understood. By a lucky "find" in the bend of a stream

a man might make his fortune in a week ; or, if he stumbled upon a large nugget, he might make a competency for life in a single day, or in one lucky moment. There is no authentic record of the nuggets found in California ; but they were very numerous, and some of them, according to the news of the day, were of almost fabulous value. In the colony of Victoria, however, a record of these windfalls to the gold-seekers has been kept, from which it appears that the value of the larger class of nuggets in that colony ranged from £5000 to £10,000 each. One of the largest, called the "Welcome," which was found at Ballarat, weighed 2195 ounces, and was sold at Melbourne for £9325. The "Welcome Stranger," found near Dunolly, when smelted, yielded gold to the amount of £9534 ; and the "Blanche Barkly," found at Kingower, was of the value of £6905. Of half-a-dozen other nuggets mentioned, one was worth £3000 ; another, £4080 ; and another, £5532. Of the smaller class of nuggets found in the colony of Victoria, there were two hundred which ranged in value from £60 up to £2000 ; besides 350 others, the value of which ranged from £4 up to £1500.¹

The New Gold, too, was found distributed by Nature in a manner totally different from what had ever been known before. In the chief auriferous sources in ancient times—alike in India, in Nubia, and in Spain—the gold was imbedded in the hard rock,—in thin veins or rock-seams of quartz, barely

¹ *Handbook to Victoria.* Prepared for the Paris Exhibition of 1878.

visible on the surface, and requiring hard and costly labour in penetrating the rock in search or pursuit of the thin gold-vein. When gold was found on the surface—as in the Lydian streams which gave to Croesus his renowned wealth—it was only in minute quantity; and although the store thence obtained was in some cases large, it was only as the result of patient working and slow accumulation. Far different were the golden treasures suddenly revealed to mankind in the middle of the Nineteenth Century. Ages before Croesus or the Pharaohs, in the solitudes of inaccessible California and Australia, Nature had prepared a vast treasure-house for mankind,—of little use to Man in his infancy, but awaiting him, as the most appropriate gift, in the fulness of Time when he had reached that stage in his career when these treasures of Earth would be of most use to him—indeed indispensable (according to the form which human civilisation has taken) for the further development of his powers. By placing these treasures in those remote and comparatively inaccessible regions, Providence had ensured that they should remain undisturbed until civilised Man had reached the stage when the precious mineral would be of highest use to him. In immemorial times, both in California and Australia, Nature in her grand operations had done the work which Man would have toiled over, by the aid of vast Capital and the painful labour of myriads of the poorer classes, working under task-masters for mere subsistence, while wealth greater than that of the Indies passed through their hands.

Nature had torn the gold from the adamantine rocks, and strewed it over the surface, ready for even the poorest man's gathering.

Both in California and Australia, there were literally miles of this gold-covered surface. Myriads of acres, without an owner, lay ready for the adventurous Poor of all countries. The floods and inundations of an earlier world seemed to have spread gold everywhere in California, as also over the inland plains of Australia. No sooner was the golden trail once struck than the precious ore was found lying thickly and widely beneath men's feet. The soil teemed with the sparkling dust, as if the entire surface of the land consisted of debris washed down from auriferous mountains and scattered far and wide. It lay ready to the hand or spade of whoever might come. In the first and most productive stage of this gold-finding, the process was not Mining, but simple gathering. It was an operation which even the poorest could engage in. A shovel and a rude washing-machine—rocked to and fro, and hence called a "cradle"—was all that was then employed, or that was necessary to extract the abundant gold-particles and occasional nuggets from the sands or gravel. Thus, we repeat, these wide gold-fields of California and Australia were like a vast treasure-chamber suddenly opened to all,—a gift of Nature, free and untrammelled, to the Poor of all countries.

The earnings of the miners were in ample proportion to the extent and easy-getting of those treasures of Nature. The earnings of the early gold-seekers in

California averaged from £1 to £3 a-day ; and M. Chevalier, writing so late as 1857 or 1858, stated that at that time the daily earnings of the miners, both in California and Australia, averaged 16s.—which, he added, is about four times the rate of wages in the most advanced and prosperous countries in the world. Professor Jevons, indeed, appears to question whether the miners' earnings ever were so large as they used to be contemporaneously stated. Quoting from the *Melbourne Argus* in 1862 (ten years after gold-finding was at its best in Australia), he states the net earnings, or “rate of wages” of the miners (gold-diggers), at 8s. 8d. in 1854, at 5s. 6d. in 1859, and at 4s. 8d. in 1861. But even if this estimate be correct, it does not conflict with the much higher estimate given by contemporaneous writers for the earlier and prime years of gold-finding. In the table given by Mr Jevons, we see how rapidly the wages at the mines fell subsequently to 1854 ; and it is well known that the profits of gold-finding, both in Australia and California, were at their highest point immediately upon the discovery of the gold-fields,—when gold was literally gathered, rather than mined or even dug for. These purely surface gold-deposits, or the best of them, had been exhausted prior to 1854 ; and the contemporaneous evidence of the immense earnings of the gold-seekers is too explicit and detailed to leave room for scepticism.

One feature of the case must be clearly kept in remembrance. The rate of wages was a totally inadequate indication of the rate of earnings. It was

only the weaker brethren who accepted wages and "bondage." The vast majority of the gold-seekers, and all the more skilful and enterprising men, utterly despised wages,—preferring to work on their own account, and to possess what they won. Thus the rate of wages, in the earlier and best years of gold-seeking, represented only the earnings of the feeblcr class of workers—not the earnings of the general body of workers. It was most reluctantly that the "miners"—to use the common but misleading phrase—submitted to regular pay and hours, under an employer; nor was this done to any considerable extent until the purely surface-deposits, the most productive of all, had been exhausted, and individual labour became powerless upon the deeper portions of the gold-beds.

In California, where contemporaneous records have been preserved in a most reliable form, the average earnings of the gold-diggers appear to have been from £2, 10s. to £4 a-day. And these gains, vast as they are, were merely the average of what was reaped by the poor common labourers from other countries. Well-authenticated accounts of the earnings made by known persons, actually give an average of from £25 to £50 a-day "for a long period;" while "numerous others were said to be earning even from £120 to £200 a-day!" The "dry diggings," or auriferous gravel-beds spread over the surface of the country, were the most productive of all. One piece of pure metal was found which weighed thirteen pounds. Yet the work upon these gold-beds was so simple, and

the gold so readily reached, that at first a "butcher's knife" was all that was needed to pick out the pieces of gold,—the price of a knife, however, suddenly rising to-£5 or £6 a-piece! And when the pick and shovel came to be employed, the gains became absolutely enormous. "Individuals made their five thousand, ten thousand, and even fifteen thousand dollars (from £1000 to £3000) in the space of only a few weeks. One man dug out [merely with pick or knife] 1200 dollars in six days; three others obtained 8000 dollars in a single day." Indeed one may judge of the vastness of the earnings then made, by the immense price paid for labour in connection with the gold thus found. The auriferous earth dug out of ravines and holes in the mountains, used to be packed on horses, and carried one, two, or three miles to the nearest water, to be washed; and an average price of washing this "dirt," as it was called, was at one period so much as £100 a cart-load! Nor was this charge extravagant compared with the results obtained: in one case, for instance, five loads of this "dirt," or auriferous earth, after being washed, yielded £4000 worth of gold, or at the rate of £800 per cart-load. In some cases, horses being scarce or unprocurable, men engaged in carrying the earth in sacks on their backs to the places for washing, and made £200 to nearly £400 a-day as the proceeds of their labour. Such sums appear fabulous. Never since the world began had such wealth fallen to the lot of the common labourer, or indeed even to the most skilful and gifted of the human race. A good

sample of the average gains of the ordinary gold-seeker is given by the personal experience of the publisher of the "Californian" newspaper. During the universal rush to the gold-fields, which temporarily made San Francisco a solitude, the newspaper office had to be shut, alike from want of printers and of readers; and when publication was resumed, the editors stated that their publisher, "when on a tour alone to the mining district, collected, with the aid of a shovel, pick, and tin pan about twenty inches in diameter, from forty-four to one hundred and twenty-eight dollars a-day, averaging one hundred dollars," or about £25.¹

Such, then, were the extraordinary earnings of the gold-seekers during the first period, both in California and Australia. It was not necessary for men to hire themselves when gold-finding was an operation in which the rudest labourer could engage for himself. And the gold-seekers of that period scorned wages, not only because they could earn more of themselves, but also, and perhaps still more, because restraint was hateful to them, while the excitement of the gold-hunt was a sport of the most thrilling and pleasurable kind. The true type of the Gold-seeker—a type which then had ample scope for its idiosyncrasies—would not be satisfied with wages, however high. In mining of all kinds speculation runs high, and especially in the digging for the royal

¹ The remarkable statements in this paragraph are taken from the *Annals of San Francisco*, by Frank Soulé, John H. Gihon, and James Nisbet. New York, 1855.

metal, gold. Gold-digging gives all the excitement of gambling, combined with attractions peculiar to itself. In the picturesque glens of California, shaded and sheltered by gigantic forest-trees, as on the wide grassy or "scrub-covered" plains of Australia, in both cases with a clement sky overhead—there was such freedom! such personal independence! A fire was lit, the "damper" was baked, the universal tea-kettle was set a-boiling, and the miner camped where he chose,—inhaling the fresh air of the plains or of the mountains, and going to sleep beneath serene skies, or sheltered by the health-breathing gum-trees,¹ to dream of nuggets of huge size and "gold-finds" of surpassing richness. The great attraction of the diggings was in the freedom and novelty of the life, and the exciting chance of making a sudden fortune.

¹ The Blue Gum (*Eucalyptus globulus*), which of late has attracted considerable attention in Europe, is restricted to Southern and Eastern Victoria, and to the colony of Tasmania; it grows to an enormous size in almost any kind of soil, and is well known, not only for the value of its timber, but also for its vigorous growth and hygienic properties. It is true that all eucalypts partake of this latter property, but from the exceeding vigour and pleasing symmetry of the trees of this particular species, it has been denominated the representative type of the many kinds of the Australian gum-trees. The wood of the blue gum is of a yellowish-grey tint, with a free, straight grain, of great strength and tenacity, and to be obtained in almost any lengths with moderate equality of section. A resin is obtained from this tree of a kino character, and a volatile oil from the leaves, together with a bitter principle in an amorphous condition, and an acid termed "eucalyptic acid." The oil and the bitter are well spoken of by the missionaries of the New Hebrides and South Sea Islands for ague and dengue fever. The tree, when in full growth, gives off an aroma under a genial atmosphere, which is acknowledged to destroy malaria and miasmatic poison.

The miners in general never contemplated a permanent residence in the gold-country. Their desire was to raise a "pile," and then to return *home*. But so great were the attractions of the gold-hunt that often they were permanently caught in its golden meshes. They took to gold-seeking as a profession,—pursuing it no longer as a mere means of gaining wealth, but as bound to it by its irresistible allurements. In truth, the gold-seekers would often make a "pile"—only to squander it as swiftly as it had been made, and then to begin the gambling gold-hunt anew. Thus a class of professional miners arose, thoroughly nomadic in their habits, and ready to rush from place to place wherever Hope or Rumour might direct. When a valuable gold-district happened to be discovered, a "rush" to it took place from all the adjoining regions, indeed from the most distant parts of the gold-country. Restlessness was a peculiar characteristic of the miner, who is usually both sanguine and highly speculative. Working hard for perhaps a month—harder even than a British "navvy"—the gold-digger then grows weary and discontented with his gains, and wanders about "prospecting" on his own account: poking into every likely crevice in the rocks, sinking pits here and there, and trying the sandy bed of every stream he may see in his rambles,—wistfully hoping for, yet but seldom finding, some rich "pocket" or secret deposit that will quickly make him rich. If he did make a pile, it was not Home that attracted him; but a passionate, though often rude and gross

desire for pleasure seized upon him, as a reaction from his hard bodily toil ; and he rushed to "Frisco" or Melbourne to enjoy a delirium of strong but coarse excitement,—and then, returned haggard and penniless to the scene of his previous labours. On the other hand, if he were unsuccessful in his prospecting, and a month of this vagrant life passed without some lucky hit, the issue was just the same : necessity, a want of the means of life, caused him to tire of, or at least cease from his vagrancy, and settle anew to hard work on some of the known and ordinarily profitable gold-beds. Thus the digger sets vigorously to work once more, for another month or two, until ennui and restlessness anew force him to go on the tramp again,—looking for the fanciful great nuggets or rich pockets whose discovery (he thinks) would satisfy his heart and settle his life. He chases the rainbow in the hope of reaching the spot (ever-receding from him) where the brilliant bow touches and momentarily colours the earth ; and, although ever failing, he still pursues. And so, like Man in the abstract, the gold-seeker "never is, but always to be blessed."

It was just the same in Australia. There soon arose a large class of experienced but nomadic Diggers, who constantly made "rushes," and, often on the most unreasonable grounds, would even make journeys from one colony to another, a thousand miles or more away. Professor Jevons, who was in Australia at the time, says, "they strive to keep up the pleasure of the chase by frequent removals

from one digging to another, on the slightest report of new discoveries. I have seen 10,000 diggers and others assembled in a 'rush' during two or three weeks, on a plot of ground where a rich discovery was 'reported' to have been made, and where a town of wood and canvas was already risen, or quickly rising,—with its shops for butchers, bakers, clothiers, jewellers, and even with hotels, banks, and newspaper offices."

It was the most productive stage of the gold-discoveries which was likewise the special period of this wild freedom and the potency of individual labour. A *Saturnalia* of the modern world: a revival of the fabled Saturnian Age of primitive freedom, simplicity, and general wellbeing; yet mixed and darkened by wild riots in gambling "hells" and the palaces of drink and profligacy, which are among the "inventions which Man has sought out," to give lurid excitement and widespread ruin and grief in the heart of civilised life. The freedom of the miners was perfect, as their gains were immense. In truth—strange sight for an emigrant from the old countries!—the whole land lay before them, where to choose. No wall or fence was to be seen on the still virgin face of the country, marking and guarding the rights of proprietorship; and men both strayed and stayed where they pleased,—as free of the soil as they were of their own life. And this free and plenteous life died out slowly; for, as the known gold-districts became exhausted on the surface, the professional miners pushed onward into the interior,

—a belt of scanty individual labour out-fringing the known and fully-worked gold-districts; and even at the present day single specimens of the adventurous old miner may still be met with in interior and out-lying corners of Australia,—wandering with shovel and wash-pan, poking about here and there into likely places,—pondering over the recollections of great “finds” in the past, and dreaming open-eyed of rich deposits which in a moment would repay the labours of a whole life, reopening to him the treasures which Earth seemed specially to keep for the poor and hardy adventurer.

But Nature, so infinitely various in her forms and workings, had reserved a portion of this gift for the wealthy as well as for the poor,—for Capital as well as for rude Labour. As soon as the *placers* in the beds of streams and gulches of the mountains had been exhausted, and the great and deep gravel-beds had been worked over the surface, the individual labour of the poor man became helpless. The vast deep-lying treasures in the alluvial gravel-beds—and that other source of treasure, the seams of quartz embedded in the hard rocks of the mountains or underneath—could only be worked by combined or co-operative industry with the help of Capital. From the outset, the Californian gravel-beds had presented a difficulty owing to the absence of water; but water was conveyed in troughs and rude courses, and many thousands of diggers went to work upon their surface. But how was it possible to work them below the level of the

surrounding country? When a miner had excavated to the depth of even three or four feet, he got into difficulties. The gravel might easily be sifted by washing, and thereafter thrown up on the adjoining ground; but this was to cover up another portion of the auriferous gravel-bed. The chief and insuperable difficulty, however, was of another kind,—namely, how was the water to be got rid of? For any deep excavation it was necessary to construct long tunnels, with an outlet in some distant ravine, through which both the water and the refuse gravel could be carried away from the spot of working. This was entirely beyond the means of the early miners, even if they clubbed together. And so a crisis came both in California and Australia, but which was most marked in California. The miners were for the most part a quick-witted ready-handed set of men, ready to turn their hands to anything: and when this check to their operations came, a large number of them, having made some money at the “diggings,” took to agriculture, for which both of the Gold-countries presented ample scope. Gradually the wide gravel-beds became deserted,—their surface being merely pitted here and there with shallow holes or excavations, although an untold and almost inconceivable wealth of gold lay untouched below.

Labour had had its day,—the poor man had reaped his harvest. It was the turn of Capital to show its powers and win its profits. Now, there were two ways in which Capital had operated, both

in California and Australia ; for it was in two distinct forms, in each of those countries, that the remaining sources of gold, inaccessible to the poor, could be reached or utilised. Both of these kinds of operations include Mining, in the proper meaning of the word,—yet of two distinct kinds. There was Quartz-mining, in search of auriferous quartz-seams or “reefs” in the rocks ; and secondly, there was mining, in a rough sense of the word, or deep-sunk excavations into the great gravel-beds of California (ancient river-beds filled with auriferous quartz-gravel), and also true mining in search of and to work subterranean alluvial deposits of auriferous quartz-gravel and mud, as in Australia.

First, as to the Quartz-mining,—which was practised in the earliest times, as in the gold-mines of Nubia, as worked by the Pharaohs ; and in the Spanish mines, as worked alike and successively by the Phœnicians, the Carthaginians, and the Romans ; and also in the Roman mines in Hungary and Transylvania, although these latter appear to have been chiefly silver-mines. Quartz-mining consists in driving horizontal or perpendicular shafts in search, or along the course, of the quartz-veins or reefs,—in boring and blasting the solid rock,—carrying to the surface such portions of it as promise to be auriferous, and then crushing them by means of machinery of a simple but ponderous and costly character. The quartz, brought up from the bowels of the earth, or rather from the heart of the rocks, is subjected in many cases to a process of “roasting” or burning, and

then is broken up into small pieces a little larger than ordinary road-metal, and placed in a crushing-machine, which consists of a "battery" of four, six, eight, or more "stampers," driven by steam-power. The stampers consist of upright iron rods, shod with heavy metal "shoes," and which, rising and falling with regular motion, gradually pound the hardest quartz into powder. The stamp-heads, or "shoes," work in an iron box, into which the roasted and broken quartz is shot, and which is kept supplied with a stream of water, whereby the quartz-mud or pounded quartz is carried off through a grating in front, while the golden particles, being heavier, sink to the bottom. This is the chief operation; but it is necessary to look after every atom of the precious metal, particles of which escape from the stamping-machine in the mud. To prevent this loss, the water is caused to flow over a sloping board, or platform, covered with a "blanket" of green baize, or some other coarse material, which holds much of the gold; while its escape is further prevented by small grooves, or ledges, across the platform, charged with mercury, which lays hold of the particles of gold as they are washed down. The whole of the débris—from the bottom of the box, from the blanket which is rinsed with hot water, and from the gutters—is then placed in a vessel containing a quantity of mercury, and by a rotary or shaking motion, an amalgam of gold and mercury is formed. The amalgam is then placed in chamois leather, which is squeezed until a considerable portion of the mercury oozes through it: the

remaining amalgam is put in a retort, when powerful heat causes the mercury to fly off through a pipe provided for the purpose, while the pure gold remains in a cake at the bottom.

In California an entirely new process of gold-mining has been adopted, in order to meet the peculiar and elsewhere unparalleled conditions under which the greater part of the gold is there found. This is called "Hydraulic mining," or, in the language of the miners, "Hydraulicking." It is employed upon the auriferous gravel-beds as found in the deep channels of the long-vanished primeval rivers of the country. As already described, the difficulty of working these great gravel-beds, some of them not less than four hundred feet in depth—the richest portion of the gravel being at the bottom, next to the water-worn rock-bed of the ancient rivers—was very great, requiring combined labour supported by capital. Accordingly, the small original holdings—many of which had been wholly abandoned, and all of which had become incapable of being worked profitably by individual labour—were bought up and amalgamated, and joint-stock Companies were formed to resume the working of these vastly rich gold-beds. Two things were wanted, each of which required a large capital. In the first place, a large supply of water had to be obtained; and the water had to be brought in many cases from great distances in the adjoining mountains. Indeed reservoirs had to be constructed, usually high up the Sierra; and the water is brought to the gravel-beds frequently in

large and long canals, with aqueducts cut in the solid rock, or carried aloft across valley and plain. Secondly, and at a still heavier expense, tunnels had to be excavated from the bottom of the gravel-bed to carry off the water and gravel. It is requisite that these tunnels should have a steep slope, of about one foot in twelve; and the only way of finding an outlet for them is to carry the tunnel to the nearest ravine which is sufficiently below the level of the workings in the gravel-bed. Half a mile is an ordinary length for these tunnels; and as in many parts they have to be cut through rock, it is obvious that not only a large amount of capital is requisite, but also that a considerable length of time—frequently two years—must elapse before the various preparations for working any particular holding, or portion of the gravel-beds, can be completed.

The tunnel is the characteristic feature of this latest stage of hydraulic mining, or “hydraulicking,” as the Californians call it. But there is another remarkable feature connected with it. The water is employed not merely to wash out the gold, but to do the work of excavation. The greatest auriferous gravel-bed of California is no less than four hundred feet in depth, resting upon a bottom of waterworn rock, and the gravel increases in richness as it approaches the bottom: so that, ample and easily won as were the gains of the first miners who merely scratched the surface, they were really working upon the least auriferous portion of the gravel-bed. This

mass of gravel consists of the water-worn *débris* of quartz-rocks embedded in a very stiff clay impregnated with iron,—so stiff that the sides of an excavation stand as erect as a solid wall. The labour of excavating such a material by pick and shovel would be very great; but by means of water, employed under a very high pressure, the work of excavation goes on rapidly and economically, the torrents of water washing down the stiff mass with resistless force. The water, after being brought from the mountains, is placed in a small reservoir situated close to, and as high as possible above, the gravel-bed to be operated upon; and the subsequent process of employing water in excavation is as follows:—From the reservoir the water passes by a pipe of wrought iron, from a foot to 18 inches in diameter, to the spot where it is required, from 150 to 400 feet below the level of the reservoir, and passes out through a movable nozzle of from two to five inches in diameter. The pipe is made of the best and toughest iron, since, were the stream of water stopped suddenly at the nozzle, instead of by turning it off at the reservoir, the pressure would not improbably burst it. The stream issues from the nozzle with tremendous force, under the immense pressure exercised by the three or four hundred feet of water above, and knocking the cement-like clay to pieces, washes down great blocks of the gravel in a few minutes. So great is the force that it will roll over boulders of two or three tons with the greatest ease. The water, when it strikes the face of the

gravel, becomes a small river, and sweeps away the mud and gravel into the flumes of troughs in which the gold is caught.

For several years past, almost the entire gold-produce of California has been obtained by this hydraulic process—operations harmless enough in character, and very different from the noxious chemical works in England which pollute both our air and our rivers. Yet it appears that, owing to the vast extent to which “hydraulicking” is now carried on, great damage is being done to the agricultural interests of California. The newspapers contain grievous complaints. They say (Oct. 1878) that the hydraulic method of extracting gold forces a quantity of barren sand down the chief streams, which chokes up the river-beds, diverting the currents, and is spread by the freshets over the alluvial valleys in such deep layers as to destroy tillage, and cover the fruitful land with barrenness. The Sacramento River is being transformed into a mere ditch, while the land-owners on the Bear River, a tributary of the Sacramento, have formed a Protection Society to prosecute the Mining Companies for damages. Bear River in 1857 was a clear stream; since then, the bed has risen ten to fourteen feet, causing the river to overflow and form a new channel, while the water is alleged to be “too muddy to use even for irrigation.” Even the Bay of San Francisco is being filled up at various points by the débris from the great hydraulicking operations in the Sierra Nevada.

Lastly, as to Mining (proper) in the forms under

which it is practised in Australia. And here I must observe how entirely the gold-discoveries both in California and Australia have upset the theories of the Geologists,—upset them, indeed, all round. We have described the strange geological romance connected with the distribution of gold in California, and we shall have to describe an equally strange geological story in connection with the “alluvious” gold-deposits in Australia. But consider even the primal formation or distribution of gold in the rocks and stony structure of the earth. In Australia, gold has been found *in situ* under geological circumstances or conditions which previously had been wholly unknown, and even unsuspected. Indeed, what fact can be more startling to preconceived notions than that gold should be found in sandstone? In Australia, gold has been found in sandstone, and in Silurian claystone, and not merely in veins traversing granite, but in granite itself. It has been found in soils formed of the débris of slates and sandstones, and from the disintegration of rocks belonging not merely to one geological age, but to geological epochs of the most widely different times and character,—the remote Silurian, the Mesozoic, and Miocene, as well as the comparatively modern Pliocene. In truth the pick and shovel of the miner have so utterly demolished the theories of Science, that, in so richly auriferous a country as Victoria, for example, it is impossible to say where gold will *not* be found.¹ In-

¹ “Gold has been found in veins traversing granite, and diorite, in the granite itself, and detected in the planes of bedding of soft yellowish

deed it was in open defiance of the Geologists that the deep mines were sunk, which now furnish the largest and most peculiar portion of the present gold-production of Australia.

In Australia, the mining for gold is conducted under two forms, and in search of the ore under two different conditions. One of these forms of Australian mining is simply what is called Quartz-mining—the mining for and crushing of quartz-reefs: the most common of all forms of gold-mining, or we might almost say of gold-seeking. In such work, the auriferous quartz-reefs, embedded as seams in other kinds of rock, are frequently found showing themselves, or “cropping out,” on the surface of the earth, as on mountain-slopes. In such cases, and also where the existence of auriferous quartz-veins is suspected, tunnels are usually driven horizontally into the side of a hill or mountain, in search of the quartz-veins, which also are worked by galleries of various depth; and the quartz is then brought to the surface, and crushed in the “stampers” or quartz-crushing mills or machinery, as has been

and reddish-brown Silurian claystone, and in sandstone. It occurs in bluish-white silicates—in the veins with carbonate of lime, oxide of manganese, and, rarely, with sulphate of barytes. It has been got from the Silurian, the Mesozoic, and the Miocene rocks, as well as from the Pliocene deposits, and the soils derived from the breaking up of slates and sandstones. And since the pick and shovel of the miner have thus demolished so many of the ingenious hypotheses of closet philosophers, it is difficult to lay down any authoritative data as to where gold will not be found, hereafter, in a country so full of anomalies, and so splendidly endowed with mineral wealth as Victoria.”—*Handbook to Victoria*. Prepared officially for the Paris Exhibition of 1878.

previously described. The other kind of gold-mining in Australia, to which the deepest mines belong, is carried on upon, and in search for, what are known as the "alluvious deposits" of gold,—which require a word of description, especially as they reveal a geological romance not less remarkable than that which has been brought to light in California, yet quite different in some of its features.

In California, as has been already told,¹ the primeval quartz-rocks or mountains, from whence the now widely distributed gold originally came, have crumbled down and disappeared immemorial ages ago; and their auriferous débris now fill the deep beds of great rivers, which have likewise long vanished, or cover ancient valleys now buried deep beneath a vast overflow of lava, issuing from volcanoes which have long ago become extinct. But all of these Californian gold-deposits, or auriferous gravel-beds, lie on the present surface of the country, except where, as already said, they are capped by lava-beds. In Australia, the geological romance assumes another, and even more surprising form.

The superficial alluvial deposits of gold in Australia, as in California, were the first to be exhausted; but of late it has been found that auriferous deposits of alluvium exist in various localities, sometimes in successive layers, reaching to a depth of two or three hundred fathoms below the present surface of the country! Generally, too, these layers of auriferous alluvium are separated from one another by lava-

¹ *Vide supra*, p. 146-50.

beds, varying in depth or thickness from 25 to 50 and even 75 feet. This is an extraordinary revelation of the Past. Schliemann found three cities, lying in layered ruins on the site of ancient Troy; and even in the City of London, beneath the present streets of the railway age, we find not only the remains of a London before the Plague and the Great Fire, but a Danish London, a Roman London, and even traces of an ancient British or Boadicean London. All this lies within a depth of twenty or thirty feet from the present surface; and a very striking spectacle it is. Within these six or ten yards lie the whole efforts and records of man since Civilisation in its rudest form first settled on the heights overlooking the Thames, between its confluence with the Fleet and the Lea. But at least five hundred yards now lie between the present surface of Victoria (or of parts thereof) and the surface of the land as it stood in the primeval times when gold first became distributed over it, by the forces of Nature!

In the neighbourhood of Ballarat, for example—the locality where gold was first discovered, lying thickly in superficial alluvial deposits, the state of matters is this:—First, there was the auriferous alluvial deposit on the surface, speedily exhausted: thereafter, the mines, or “deep-sinkings,” came upon an auriferous bed of alluvium, resting upon a bed of lava, some 50 feet thick; passing downwards, below the lava, and through non-auriferous material, the mine came upon a second bed of alluvium, rich in

gold ; and below it another bed of lava, some 25 feet in depth ; again descending through the hard lava-bed, the mine comes upon a third alluvious deposit, rich in gold, and resting upon another bed of lava, of about 75 feet in thickness ; and at least another layer of auriferous alluvium, resting upon another lava-bed of still greater depth, has been found in those subterranean depths. Nor is it known that even the deepest mine has reached the limit of these cataclysmal changes. Here, then, Nature must have been at work both curiously and on a very grand scale. Manifestly, the original surface of the country was at least fifteen hundred feet (twice the height of Arthur's Seat, at Edinburgh) lower than at present ; or rather, the present surface, by successive deposits of *débris* from primeval auriferous mountains, is some five hundred yards higher than in that primeval time,—a fact which seems to imply that the mountains thus disintegrated and levelled were of no small magnitude — mountain-ranges, rather than merely single or isolated mountains. Secondly, this levelling-up has been of two very different kinds. There has been, first, we may presume, great inundations, spreading the *débris* far and wide over the then surface of the region ; and, alternating with these, came vast floods of lava, from volcanoes far larger or more potent in their action than any which now exist—except, perhaps, that monster volcano of present times, Mount Hecla. Indeed, it is perhaps conceivable that both the inundations of auriferous mud and the floods of lava

may have both proceeded from the same source,—vast vomitings from the bowels of the earth by volcanic eruptions, until the volcanic mountains themselves collapsed and disappeared. It almost exceeds human conception to realise the enormous magnitude of volcanic action in earlier ages of the world. The lovely Bay of Naples itself is conjectured to occupy the crater of an enormous primeval volcano, of which Capri and the rocky shores of the Bay are the remains of the crater's edge; while the tiny fire of Vesuvius shows how volcanic action has dwindled since the ancient times when the whole region around was covered with the showers of volcanic dust which now form the hills of tufa-rocks. Be this as it may, the Australian phenomenon of layers of auriferous clay alternating with deep beds of lava, at Ballarat, are believed to be traceable to the neighbouring mountain of Burrumbeet (about 25 miles distant from Ballarat), now an extinct volcano. Indeed the blue-stone used for building purposes in Melbourne, and of which the adjoining rocks and ridges are composed, is simply lava; just as exactly the same material is seen in the magnificent paving of the streets of Naples, and also in far older Pompeii, as well as even in the British Isles.¹

¹ Happening to visit Glasgow immediately upon returning from a stay in Naples, I was struck by the exact likeness of the large paving stones in Blytheswood Square with the rectangular paving blocks in the broad streets (the "Strand" of Naples) adjoining the Villa Reale, and also fronting the Castel Uovo. In both cases, the stone is really lava.

It is these remarkable "alluvious" deposits, or subterranean layers of auriferous clay or mud—chiefly, pipe-clay—which at present, as for several years past, constitute the chief sources of gold-supply in Australia. These gold-beds, of course, are worked by a different kind of mining from that which is employed upon the quartz-reefs. They can only be reached by deep perpendicular mining—almost exactly resembling an ordinary coal-pit. And in many cases, these Australian gold-mines are as deep as the average of coal-pits in the British Isles.

It is in the colony of Victoria that these mines, or "deep-sinkings"—whether upon quartz-reefs, or in search of the alluvious gold-deposits—are most numerous; and several of these mines are upwards of a thousand feet in depth. At Clunes, where there is one of the richest of Australian mines, the pumping-shaft is over 1200 feet deep; and of the mines in Pleasant Creek, two are more than a thousand feet deep, and two others are, respectively, 1260 and 1420 feet in depth. Far inland as those gold-mines are, some of the richest quartz is actually raised from depths considerably below the level of the sea. Of course, before sinking those deep mines, the most careful scrutiny and consideration are given to the direction and levels of the quartz-reefs, or of the alluvious deposits, as shown by the neighbouring mines; but when satisfactory evidence of this kind is obtained, the Mining Companies carry on their costly operations with remarkable boldness, usually

justified by success. There is one "prospecting" shaft at Stawell, at the Magdala mine, which is over 1760 feet in depth, but which has not yet struck the gold-bearing quartz-veins here sought after. And deep as the mines are at present, there is every likelihood of their being carried still deeper; for, we are told, "Science is still in doubt as to the depth [*i.e.* the further depth] to which the gold-bearing *rocks* extend, and also as to the possibility or otherwise of discovering auriferous *alluvious deposits* at a lower level than the deepest of the deep leads already worked." In truth, the romance of geology, thus revealed in the gold-seeking, is every whit as remarkable in Australia as in California. Mountains of golden quartz have disappeared in both countries; and is not the levelling up of the Australian plains to a depth of some 1500 feet with the debris of the old mountains, alternating with floods of lava, as remarkable as the vanishing of the golden quartz-mountains of California, the change in the river-system, and subsequent lava- oods, overlaying in many places the present gold-beds spread along the western base of the Sierra Nevada?

BOOK SECOND

A RETROSPECT



CHAPTER VII.

HISTORY AND INFLUENCE OF THE PRECIOUS METALS DOWN TO THE BIRTH OF MODERN EUROPE.

“THAT which has been, is, and shall be,” was the legendary saying of the Brazen Head of Friar Bacon, —a re-statement of the maxim of the great Hebrew monarch, that “there is nothing new under the sun.” The two leading features of the events of the present age which we here record are, a remarkable discovery of mines of the precious metals, and a consequent great increase or accumulation of gold and silver in the civilised world. Both of these events, in their broad aspects, have been paralleled in the previous experience of mankind. The Golden Age of this nineteenth century is a brilliant pendant, possibly a magnificent close, to the history of the precious metals in their *rôle* as mighty agents in the career of human civilisation. And the true character and influence of the present gold-discoveries cannot be exhibited without a brief review of the analogous epochs in earlier times, and of the intervening links of monetary scarcity.

From the very dawn of civilisation there has been a passionate search for the precious metals : indeed it is strange to find how this search was carried on even in outlying and barbarous regions of the globe. In the Ural Mountains, and in the desolate wastes of Siberia, traces exist which show that mines were there worked by a population long ago perished or displaced, and which must have been in a state of barbarism, yet who contrived to dig out the ores and extract from them the precious metal with wonderful ingenuity. So, also, in other quarters of the globe. But what a gulf of circumstance, as well as of time, separates the new Golden Age, with all its appliances and ideas of mature civilisation, from those early searchings, and indeed from all analogous epochs in history !

Asia, the largest and most populous of continents, is also the one which has supplied by far the largest portion of the gold-produce of the Old World. Next to it comes Africa. And it was in south-western Asia and in Egypt that we first hear of large accumulations of the precious metals. The East was proverbially prolific both of gems and of gold ; and Classic poets long preceded Milton in celebrating "the wealth of Ormuzd and of Ind." Babylon and Egypt had amassed vast stores of gold and silver, while Europe was still "the dark continent," a waste and howling wilderness. In the royal palace which Diodorus saw at Thebes—doubtless the Ramessium—the King, the great Ramesses, was depicted "in glorious colours," offering to the gods the produce of

his mines of gold and silver: the quantity there recorded amounting to no less than six millions sterling. And did not the famous Semiramis erect a temple at Babylon to the supreme god, Bel, whereon stood three statues of the chief deities, each forty feet in height, all of beaten gold; with an altar before them, forty feet long by fifteen in breadth, likewise of gold, and plenished by large golden censers and drinking-vases: the quantity of gold employed in this single work being equivalent, according to the Abbé Barthélemy, to no less than eleven millions sterling! And besides this, and all the splendour of the royal palaces, there was the gigantic statue, or "image of gold," sixty cubits in height, erected by Nebuchadnezzar on the adjoining plain of Dura. Was not the great Median capital and fortress of Ecbatana a glittering mass of plated gold and silver, the very tiles being of silver,—the capture of which place yielded Alexander the Great forty millions sterling in the precious metals; and, after being three times plundered, did not its mere débris yield to Antiochus gold and silver which, when coined, amounted to upwards of a million pounds of our money? Likewise Persepolis yielded to Alexander twenty-seven millions sterling of treasure, nearly all of it doubtless derived from the royal palaces. Of the gold and silver in their greatest seat of all—viz., Bâbylon—there is no record among the spoils won by Alexander; the great Macedonian doubtless preferring to maintain intact the golden glories of his capital instead of adding them, like the spoil of other

cities, to his treasure-chest. Even the little kingdom of Judea, during its brief heyday, under Solomon, shared in this abundance of the precious metals. The Temple and the House of the Forest of Lebanon blazed with gold; the throne was of ivory covered with the best gold, all the vessels of every kind were of pure gold—"none were of silver, for that metal was nothing accounted of in the days of Solomon—the king made silver to be as the stones in Jerusalem."

The wealth of precious metal amassed by the Pharaohs, during the grandest and most heroic epoch of ancient Egypt, came directly from mines—evidently of auriferous quartz-rock, which, we are told, were discovered by "kings of the ancient race"—and which were situated among the mountains of Nubia, and also in the desert, several days' march from the banks of the Nile. But the kindred wealth of Babylon and Nineveh was brought from afar,—gained partly by conquest, partly in tribute, and also as the result of trade with the regions of further Asia. India and Bactria, or Upper Asia, appear to have been the chief gold and silver producing countries. "In the north," says the Father of History, "there is a prodigious quantity of gold, but how it is produced I am not able to tell with certainty." The old peoples, whoever they were, who occupied Northern Asia prior to the desolating conquest of that region by the Tartars (about 150 B.C.), although ignorant of the use of iron, had long ago worked the gold-beds in the Ural Mountains and Siberia, only

re-discovered during the present century. Recent travellers have come upon those old workings ; and Gmelin, speaking of the remains of the works which had belonged to old silver-mines in Eastern Siberia, remarked that the lead with which the silver had co-existed in the ore was all left, while the silver had been extracted, and only small particles of it had been suffered to remain mingled with the scorïæ.¹ As regards India, Herodotus mentions a gold-working people who lived near the sources of the Indus,—probably in the region now known as Chinese Thibet, from which all strangers are rigidly excluded by the Chinese Government, but which Andrew Wilson and other recent travellers strongly suspect to be rich in veins of the precious metals ; and they mention this suspected fact as probably explaining the determined jealousy of the Chinese authorities, who dread that a discovery of this mineral wealth would occasion a large influx of unruly foreigners into this remote part of the Celestial Empire. Speaking apparently of India Proper, but using names unknown to us of the present day, Pliny says, “ the Dardaneans inhabit a country the richest of all India in gold-mines, and the Selians have the most abundant mines of silver.”

¹ Gmelin observed nearly a thousand small smelting furnaces in Siberia. They were made of red brick, and in them pieces of melted copper, from two to three pounds in weight, have been found, and large heaps of scorïæ lie around. These furnaces were about two feet in height and three feet in length. There were holes in the sides, both the front and back, evidently meant for the bellows, and also a vent for the draught. A long time must have elapsed since these rude works were abandoned, for large fir-trees have rooted themselves among the stones that are heaped against the sides of the furnaces.

“In the country of the Naræans, on the other side of the mountain Capitalia (the Vindhya Mountains?), there are a very great number of mines, both of gold and silver, in which the Indians work very extensively.” The abundance of the precious metals in India in those days is evidenced by the fact that small, and comparatively poor, as was the part of it subject to the Persian monarchy (not exceeding the Punjab and Scinde), the annual tribute of treasures sent to Darius from the Indian satrapy, after defraying the expenses of the local administration, was £600,000, the largest tribute of any of the provinces of the empire, the metropolitan district of Babylon excepted. Moreover, as Herodotus records, there was always trade carried on overland by caravans between Babylon and India; and we also know that the commercial navies both of Babylon and of the Pharaohs traded with the coasts of India—doubtless, according to the customs of the time, bringing back gold and silver as the most prized fruits of the trade. We may add that, in India, as in Upper Asia, recent research is bringing to light, in the Wynaad Hills, several of the gold-reefs from whence (as shown by the shafts, tunnels, and other signs of old working) ancient India derived its stock of the precious metals.

Egypt and Babylon—the two great suns of the ancient world—attracted to themselves, alike by trade and conquest, the treasures of gold and silver produced in the outlying portions of the world,—in many of which the population was barbarous or

uncivilised, and yet, under the fascination which the sparkling metals exert even upon barbarians, where gold and silver were worked with no small measure of skill and success. The invasions and far-reaching conquests of Alexander the Great swept away and dispersed westwards a large portion of the vast stock of the precious metals thus accumulated in the East. In regal fashion, it had been mainly stored up in ornamental forms in palaces and temples, with their idol-statues and altars, and with countless vessels for sacerdotal pomp and royal banqueting. Alexander ransacked the captured palaces and cities to swell his treasure-chest, throwing a large portion of this spoil into the melting-pot, and scattering coin and ingots with a lavishness unequalled either in previous or subsequent ages. He gave two and a third millions sterling to pay the debts of his soldiers; further, he flung half a million as a ready gift to the Thessalians; he spent nearly three millions upon the funeral of his friend Hephæstion; while, in striking contrast to this foolish prodigality, he gave £200,000 to assist Aristotle in his great work. This golden sport of Alexander's shows better, perhaps, than aught else, the great abundance of gold and silver in the East. His satraps and successors likewise possessed vast treasures in specie: Harpalus is said to have possessed 50,000 talents; while the treasure of Ptolemy Philadelphus amounted at the least to forty-five millions sterling,—or to 180 millions, if Appian could be held as reckoning in the Roman, instead of the Ptolemaic talent.

Although both Babylon and Egypt, in their hey-day, had abounded in the precious metals, and although a vast store of gold and silver as well as of gems existed in India, diffused among the courts of the Native Princes, prior to the ruthless Mahometan invasions; the first true Golden Age of the civilised world (limited in area though it then was) occurred under the sway, and as a result of the conquests, of mighty Rome,—a city which came to throw its chains over the whole of the then known world. This remarkable epoch, when gold and silver appear to have been more abundant in the heart of the Roman world than they have ever been within any other equal area, began in the closing years of the Republic, and helped to produce those great fortunes and vast inequalities of wealth which hastened or necessitated the fall of the republican system of government and society. And nearly all of this golden wealth came from the East, as the spoils of war and as tribute-money from conquered States. It was by successive waves of military conquest that Europe supplied itself with a store of the precious metals,—gradually denuding the old East of the greater part of the metallic treasures for which it was so long famous.

The conquests of Alexander the Great had gathered together and brought into Western Asia a large portion of the ancient accumulations of gold and silver. But it was the iron hand of Rome which, by a fresh wave of conquest, swept those treasures into Europe, to swell the pomp and power of Rome, to facilitate trade and civilisation throughout the Mediterranean

world, and to aid in sending forth the Legions on their mission of conquest and civilisation into the central regions of Europe, which till then had lain in a night of barbarism. The treasure which the Romans obtained from Egypt was so large that it effected a revolution in prices in Italy,—the price of land fell, and the rate of interest was lowered; indeed the Emperor for a while ordered that loans should be made from the Treasury, free of interest, to any person who offered security to double the amount of the loan. Also, previously, the amount of gold and silver which Paulus Æmilius brought to Rome from Macedonia, after his victory over Perseus, one of the successors of Alexander the Great, was so great that it is said to have freed the Romans from taxation for fifteen years.

In Europe the chief sources of gold and silver were found in the sierras of Spain, in the Carpathian Mountains, and latterly in Saxony and Norway. But not insignificant in early times were the mines of Thrace and Macedon, which enabled King Philip to subdue Greece, and his mightier son to conquer Asia. It was an Asiatic people, the Phœnicians, who first taught the Greeks to work the precious veins of rock which furnished no unimportant portion of the profit which Athens in her heyday enjoyed from her colonies and dependent islands. It was the Phœnicians, too, who first discovered the rich mines of Spain, as well as the more enduringly profitable tin and copper mines of Devon and Cornwall in the remote and fog-shrouded isles of Britain.

Until the later years of the Roman Empire, Spain was the great European source of the precious metals; and this was one of the chief causes why its possession was so eagerly contended for by Carthage and Rome.¹ Indeed it is said that the grand scheme of Athenian ambition—foiled mainly by the treason of Alcibiades, and disastrously nipped in the bud before the walls of Syracuse—was to extend the sway of Athens not only over Sicily and the Mediterranean isles, but also over Spain; and thereafter, the whole forces thus acquired, both in men and treasure, were to be brought to bear upon Greece, so as to establish Athens as the queen of the Hellenic world. Hence, when the object of the Sicilian expedition was divulged by the traitor-fugitive Alcibiades, the desperate and successful stand made by Sparta at Syracuse, to arrest the anaconda-like project of her great rival. What Athens attempted to do against Greece, Carthage did against Rome. Carthage not only got possession of the Mediter-

¹ The Phœnician mines appear to have been chiefly in Andalusia at the foot of the Sierra Morena; but other mountain-chains of the Iberian peninsula were likewise silver-bearing. Diodorus says that the Pyrenean mountains were covered with thick woods; that these were set on fire either by the shepherds or by lightning, and continued burning for a long time, and that the effect of the conflagration was to cause the melting of the mineral veins where they cropped out on the surface: in consequence of which the pure silver ran down into the valleys like streams of water. As the inhabitants were unacquainted with its value, they readily exchanged the precious metal with some Phœnician traders, who accidentally reached their shores, for trifling articles of ornament. The traders, it is added, loaded their vessels with the precious metal till they could carry no more, and then cut away the leaden anchors from their ships and replaced them with anchors of silver.—Quoted in *Jacob*, i. p. 93.

anean isles, but of Spain also, while Rome was still contending for mastery with her neighbouring peoples and repelling the Greek invasion of Pyrrhus. The Spanish infantry has been famous in all ages; and Spain furnished Hannibal not only with some of his best infantry, but also with an abundance of the precious metals, the sinews of war.

The famous mine of Bebullo, which supplied Hannibal with the greater part of his stock of money for the invasion of Italy, is well known to have been at Guadalcanal, in the province of Cordova, at the foot of the Sierra Morena. Pliny says of it: "It is very singular that the mines begun by Hannibal still exist, and retain the original names given by the persons who first explored them. One is still called Bebullo, from the discoverer, which formerly supplied Hannibal with 300 pounds' weight of silver daily." The mine was worked, adds Pliny, by means of passages under the mountain a mile and a half in length, in which the labourers, standing in water, worked night and day by lamplight to drain off the water, which at length formed a large river. Judging from what has been surveyed of this mine in recent times, the water, which was only imperfectly drained from the mine by the costly subterranean tunnel mentioned by Pliny, has long ago overflowed the whole interior of the mine; but whether the mine was exhausted of its treasure and abandoned on that account, or whether the mine was rendered useless by the influx of the water, has not been ascertained. When Spain has

recovered from her rebellions and impoverishment, it is quite possible that the long Carthaginian tunnel may be reopened in better fashion, and that we may actually see and work anew the great mine which supplied the sinews of war to Hannibal in his mortal struggle with Rome. In the old times, according to Polybius, no less than 40,000 workmen were constantly employed in the mines near to New Carthage, the modern Cartagena,—the mining fields embracing a circle of about forty furlongs, and about twenty furlongs distant from the city.

Gold, although the most valuable of metals, is the most widely diffused; and it is probable that every country of Europe in early times contained some store of the precious metal. When Julius Cæsar reaped the virgin spoils of Gaul, no small quantity of gold and silver fell into the hands of the insolvent Roman conqueror. "The copious stores of metallic wealth in ancient Gaul," says Jacob, "may be inferred from the vast treasures amassed at Thoulouse, which, according to Possidonius, on whom Strabo chiefly relies, amounted to fifteen thousand talents in gold and silver bullion,"—a sum which, if all silver, would be equal to two and a half millions sterling; and, if all gold, to no less than thirty millions of our money.¹

¹ Several centuries afterwards, Gaul continued to supply a considerable amount of the precious metals as tribute to imperial Rome. According to Gibbon (chap. xxvii.), "the rapacious ministers of Constantius had exhausted the wealth of Gaul by exacting twenty-five pieces of gold [the *aureus* at that time appears to have been worth eleven shillings of our money] for the annual tribute of every head. The humane policy of his successor reduced the capitation to seven

Even the British Isles and Western Germany were not devoid of the precious metals; while the silver-mine of Königsberg in Norway exists to show the presence of the precious ores even in the Scandinavian peninsula. In Central Europe the mines of Schellgadin were among the most important; and in Rothhausberg, three centuries ago, the valleys swarmed with inhabitants depending on the mines of gold. Like most others, these mines had been worked by the Romans,—hence probably their ancient title, the “Throne of Pluto;” and the earliest subsequent notice of them is in the year 1378, when Archbishop Pilgrim leased them for a rent of three hundred and twenty pounds. The mines of Saxony were discovered in the tenth century, when the whole district was an uninhabited forest,—the discovery being made by some carriers from Halle, on their way to Bohemia, who observed shining white metallic substances (lead and silver) in the tracks made by the wheels of their carts. The very site of these old mines is now lost—the reputed spot being covered by cornfields and vineyards. The mines in the Hartz forest were likewise discovered in the tenth century: the tradition being that a hunter of the name of Ramm, when engaged in the chase, had fastened

pieces;” and the average tribute of Gaul in treasure may be taken at sixteen pieces of gold, or about £9 per head—the tax, apparently, being confined to heads of families, exclusive of slaves or serfs. The total tribute exacted from Gaul by Constantine is estimated by Gibbon at “seven millions sterling, which were reduced to two millions by the humanity or wisdom of Julian.”—See *Jacob's Inquiry into the Precious Metals*, vol. i. p. 219.

his horse to a tree, and the pawing of the impatient steed, scraping the soil, laid bare the precious mineral, specimens of which were sent to the Emperor Otho. The entire Hartz region (where some mines continued to be worked in the present century) at its best is reckoned to have yielded about sixty ounces of gold and three hundred thousand ounces of silver yearly.

But it was the region now called Hungary which, coequally with Spain, furnished the main portion of the gold and silver—chiefly silver—yielded in early times by the European continent. The ancient silver-mines of the Carpathian Mountains are well known to this day, and became worked anew after the Roman Empire had sunk in ruins. Some of these silver-mines, like those of Schemnitz and Felsobanya, belong to the class of mother-veins: that is to say, they exhibit one great mother-vein (*veta madre*, as the Spaniards call it), surrounded in most cases by some smaller veins of little or no importance. These mother-veins fill fissures in the rocks or mountains, in some cases of extraordinary width and length, and appear to be of very recent formation, and also to be intimately related to volcanic rocks, by which they are accompanied. As Humboldt states, it is these mother-veins which furnish by far the greater portion of the silver produced throughout the world. The vein of the Grossgrube, in Felsobanya, is in structure almost the counterpart of the great Comstock-lode of Nevada. This Hungarian mine, like those of Schemnitz, is said to have yielded immensely in former

times, although evidently then worked by imperfect processes. These mines appear to have had at upper levels, near the surface, concentrated bodies of rich ore. Such masses of ore have been extracted at Schemnitz within the time of historical record, while their former and original existence at Felsobanya may be inferred from the shape and character of the old Roman works near the outcroppings. Extensive "chimneys" of silver ore have been entirely removed by the Romans. As these veins descended their richness decreased, owing to the prevalence of ores of copper and lead. Other silver-mines of Europe, like those of Freiberg, and of Königsberg in Norway, consist of a number of small fissures, which are either parallel or intersect one another; and, usually, as the veins descend they exhibit nearly the same character and richness as near the surface. The Freiberg mines have their "bonanzas," or masses of rich ore, at different levels, and have rather improved in richness as they descend. The Königsberg mines, in Norway, had their bonanzas as far down as 1800 feet, the lowest level reached, and have in later times yielded more profits than formerly. In like manner, the mines of Catorce and several others in Mexico show no decrease in yield, and have excellent ores at 1800 and even 2000 feet in depth.

The enormous store of the precious metals brought westward into the Roman Empire by the conquest of Egypt and South-Western Asia was, we incline to think, the grandest, and certainly the most notable and striking, concentration of gold and silver which

has ever been witnessed,—not least so in this respect that it was accumulated in the hands of individuals—emperors, generals, prefects,—instead of, as in our day, being held and stored out of sight by institutions, or absorbed in general circulation. The gigantic personal fortunes then prevalent may be measured by the personal expenditure, and even by the magnitude of the debts which it was then possible for an individual to contract. Julius Cæsar was in debt to private creditors to the amount of two millions sterling,—and yet this circumstance was so little regarded that it was no obstacle to his appointment as Prætor for Spain. Crassus used to say that “no man could be accounted rich who could not maintain an army out of his own revenues.” Thirty-two millions sterling were bequeathed to Augustus in legacies from friends; and Tiberius at his death left twenty-two millions, which Caligula squandered away in a single year! The age of Pompey and of Augustus, down to the reign of Trajan, or thereabouts, further differed from other similar or analogous accumulations of metallic treasure in respect that it was a joint age of Gold and Silver, and not (as subsequently) of one or other of these metals separately. That in this mighty *colluvies* of gold and silver, which gave surpassing splendour to the early reigns of the Roman Empire, the two canonised metals were almost equally represented, appears from the relative value of the two metals, which then stood very nearly at the normal point of 15 to 1.

But this glittering epoch, this first Age of Gold and Silver, which coincided with the zenith and hey-day of the Roman Empire, gradually passed away. It was entirely the result of Conquest, not of Commerce. Indeed Commerce in those times—when Rome had become dependent not merely for luxuries but for its food upon other countries—must have always been dispersing the treasure which Empire brought into the Italian peninsula. Asia, too, began to reclaim, in commerce, a portion of the treasure of which she had been robbed by conquest. Under the luxurious habits of that time—the most luxurious which the world has seen, at least since the fall of Babylon,—the trade with the East was prosecuted to supply the tastes and luxuries of Rome. Never before or since were the gums and ointments, the silks and brocades, the gems and spices and perfumes, of the East in greater repute than among the ladies of fashion and the luxurious households of the Roman nobility. And as the East wanted nothing from Italy, a constant export of the precious metals ensued, in settlement of the balance of trade. Pliny states that the Eastern Trade cost Rome £400,000 in specie a-year: a small sum, no doubt, compared with the vast accumulation of gold and silver in Italy, and really of no account by itself. But, as already said, the whole tendency of Commerce in those times was to withdraw specie from Italy. Moreover, the vigour of the Empire began to decline; and even before its frontiers were forced back, the reins of government were slackened, and the annual

tribute-money which had so long replenished the imperial treasury, began to come in less punctually and in diminishing amount.

And so, Money began to grow scarce even in the heart of the Roman world. A great change of Prices was gradually brought about. Money became dear, and a deplorable calamity set in. Taxation in those times was almost entirely of the "direct" kind: it fell upon individuals and communities, rather than upon the commodities which they use or consume. The tribute and the taxes were usually levied in fixed sums from States, townships, or provinces. Accordingly, as Money grew scarce, the weight of this taxation became proportionately increased. Gold and silver becoming scarce, a thousand pounds or ounces of these metals, or a thousand coins of the day, became as valuable as (say) fifteen hundred, or even two thousand, had previously been. Yet there was no reduction in the amount of assessment. And so the towns and districts of Italy, although nominally paying no more taxes than before, became ground down by a taxation which, although nominally the same, actually was greatly increased. In this way, one of the greatest defects of Direct taxation, and one which is often seen in the East at the present day, came disastrously into operation in ancient Italy, tending alike towards the depopulation and desolation of the country. As the dearth of Money progressed, the districts or communities could no longer afford to pay the sums required of them by the State. Thereupon some of the population went away: but this only made things

worse for those who remained : because the imperial assessment continued as before, while there was a smaller population to pay the amount. A general impoverishment began ; cultivation of the soil diminished, because the excessive taxation (owing to the change in the value of money) rendered farming, and more or less industry of all kinds, unprofitable ; and depopulation and agricultural desolation began to overspread Italy, the very heart of the Empire. Indeed it is a memorable fact that, owing to this increased weight of taxation, together with an earlier evil—namely, that the Italian farmers found it impossible to compete with the untaxed imports of grain from Egypt and North Africa,—vast tracts of Italy had relapsed into waste before a single tribe of the Barbarians had crossed the Alps.

At length the heart of the Empire was withered up. Chiefly by luxury and selfishness,—partly by the ruin of its agriculture from foreign competition (*viz.* with the grain of Egypt and Libya), and partly by a bad fiscal system, aggravated immensely by the scarcity, and consequent change in the value of money,—Italy became neither able nor willing for self-defence. With the decay of the rural population, came a scarcity of soldiers, and growing gaps in the once formidable Legions ; while the middle and upper classes became so effete with luxury that the weight of armour was intolerable to them, nor would they engage in a campaign at all save on horseback : so that Rome could no longer command an adequate supply of infantry,—that portion of an

army which has been declared by the greatest generals, from Cæsar to Wellington, to be the decisive force on the battle-field.¹ So Italy became helpless, inviting her doom. The Barbarians rushed in, and all was over. The Roman world, which had so long lain like a beautiful garden around the Mediterranean Sea,—a region which must have seemed as a Paradise to the Barbarian hordes roving to and fro in Central Europe, and gazing with fierce and covetous eyes over the garden-wall,—that rich and lovely Mediterranean region, full of splendid cities and the gathered spoil of the known world, at length lay open to the Northern hordes, who speedily trampled it into desolation.

Then there set in a long dearth of the precious metals,—a monetary famine which, at its height, was incompatible with even a moderate degree of commerce and material civilisation. There is one circumstance connected with the fall of the Roman empire which hitherto has escaped the attention which it deserves, and which undoubtedly must have played a disastrous *rôle* in the course of these events: I allude to the progress of the Barbarians, and retirement of the Roman frontier, in their effects upon the monetary supply of the Empire,—as seriously and suddenly augmenting the dearth of the precious metals, which, as already stated, produced such disastrous effects, especially upon Italy, and

¹ Wellington constantly said that, splendid as the British cavalry was, it was with the infantry that he won all his battles. And Cæsar, when addressing his men on the eve of Pharsalia, called upon them to remember that, in the fight, a man on foot could use his arms better than if on horseback.

undoubtedly precipitated the collapse of the Empire. One reads of the narrowing of the frontier and curtailment of the limits of the Empire—the withdrawal of the line of garrisons and fortified posts to the Danube, or elsewhere, as a reasonable course and simple procedure; while the overrunning of Spain by the Vandals is read of as if it simply involved a loss of territorial area, economising the strength of Rome for the defence of the central region and vitals of the Empire. But that withdrawal of the frontier to the Danube, and that loss of Spain,—what were they but a cutting-off of the sole monetary supplies from the European Continent, and the only ones which for several centuries had replenished the constantly diffused metallic treasure of the Imperial exchequer, as well as the circulating medium of Italy and other portions of the Empire? Thus, every backward step of the Legions in Europe—although apparently merely the abandonment of comparatively barren territory—helped to dry up an important element of Roman trade and industry, as well as “the sinews of war” themselves. The loss of territory beyond the Danube put out of reach the rich mines of Hungary, and the irruption of the Vandals cut off from the Empire the silver-mines of Spain. These events in Europe, accompanied by the weakening of Roman power in the East, and consequent diminution of the tribute-money from the outlying provinces, greatly accelerated by purely monetary causes the collapse of the Roman Empire, and contributed to compel the transfer of the seat of empire from impoverished and half-desolated Italy to

the truly imperial site of Byzantium, on the shores of the Bosphorus,—a change which in turn completed the ruin of the Italian provinces.

But there must have been a large quantity of gold and silver remaining in Italy when the Barbarians descended from the Alps. In the heyday of Roman empire and luxury, a vast amount of the precious metals was converted into statues, plate, and ornamental work of all kinds. The Palaces of the Cæsars and the temples of the half-forsaken gods gleamed with the precious metals; the ceiling of the Capitol had early been covered with gold plate, rather than with mere gilding, at the cost of twelve thousand talents; while both gold and silver glittered abundantly in services of plate upon the banqueting-tables of the wealthy. But how little of all this metallic treasure survived, for the use of Europe, after the irruptions of the Barbarians! The hordes of the North were not heirs or successors of Roman wealth and civilisation; they were its destroyers. It was a time of utter Chaos. The gold and silver of the sacked cities was seized by greedy yet careless hands, and much of it probably disappeared by actual loss, hidden and forgotten, as well as by the “wear-and-tear” which in such times must have vastly exceeded the computation which applies to ordinary times and circumstances.¹ What, espec-

¹ Cases of “treasure-trove” are constantly being mentioned in the newspapers. A recent discovery of this kind was made in August 1881, at Niedersteinbrunn, in Alsace. As two men were digging a ditch on the site of an old house they came upon an earthenware jar containing 4000 gold pieces, of which the weight was nearly 20 lbs. The pieces are all of the same mintage, about a millimètre in thickness and the

ally, became of the spoil of Rome? Some of it is believed to lie buried in the muddy bottom of the Tiber, and much of it was probably lost by the Barbarians almost as soon as they had acquired it. And who shall reveal the last resting-place of Alaric the Destroyer? His tomb in the bed of the Apulian river remains as unknown as that of the great Leader and Lawgiver of the Hebrews upon Mount Pisgah. Strange that the secret of the Barbarians should have been so well kept! The turning of the river from its bed,—the hollowing of a chamber deep and wide among the gravel,—the solemn burial, amid the flare of torches at midnight, and the burying along with the great King of the Visigoths of the *spolia opima* of the Imperial City which he had stormed: then, the merciless slaughter of the slaves who had done the work, in order that no tongue should reveal the secret; and lastly, the swift clearing away of the dams, and the hoarse rush of the dark river into its old bed, flowing thereafter for ever over the grave of Alaric and the spoils of Rome!

Had the Roman empire in Europe been overthrown by a more or less civilised Power, the change as regards the precious metals would have been analogous to that which had been brought about by Rome herself. Just as the Roman conquests had swept west-

diameter of a mark. On one side is the effigy of a double eagle, with the inscription "*Bercht. V., Dox Zerlin Fondator,*" and on the reverse appear the arms of Berne—a bear on a mown field. The inscription signifies that Berchtold V., Duke of Zaeuhungen, was the founder of the city. The dates on the coins run from 1617 to 1623, and they were probably hidden where they were found at the time of the Thirty Years' War.

ward the gold-and-silver treasures of Asia, so would the conquests of the Northern peoples have swept such treasures northwards into Central Europe. The diminution of gold and silver in the civilised region of the Mediterranean would have been accompanied by an abundance of the precious metals to the north of the Alps and the Pyrenees,—supplying a currency for Northern Europe, ready for usefulness as soon as that region emerged, however slowly, out of barbarism into a settled form of government and society. But no such transference took place. No new career of usefulness was reserved for the gold and silver of the Roman world after it was grasped by the blood-stained hands of the Northern invaders. It simply disappeared,—vanishing with the civilisation which it had alike supported and adorned. Even in Gaul, and partly in Britain, where Roman power had, in the cities at least, introduced no inconsiderable amount of civilisation, with attendant industry and trade, facilitated by the use of money,—even in the partially Romanised countries, the crude system of Barter had to be re-established from sheer lack of the precious metals. In England and France, as well as in some parts of Central Europe, we occasionally at the present day find coins of the Roman Emperors; yet how long a period elapsed after the Fall of Rome before any people or king to the north of the Alps revived the system of coining and the use of money, such as had been familiar in the same countries under the sway of imperial Rome!

The mere fact of a return—in this case, unavoid-

able—to the crude system of Barter constituted an obstruction to trade and industry, as well as to government and individual comfort, which can hardly be overrated. Industry progresses by means of a subdivision of labour; and for such a state of affairs, Money is indispensable. In a rude and simple form of society, every family begins by supporting themselves,—providing their own food and making their own clothes; and only their small surplus time (if any) is given to other kinds of labour and production. Hence Barter suffices for the wants of such an age or people. But, under the division of labour, a man may be most skilful in, and may find it most profitable to pursue, branches of industry or trade which do not directly supply his wants of life and of household comfort. Accordingly, exchanges must abound; and for such exchanges, for buying and selling under the system of divided labour, a supply of Money is indispensable. Thus Barter is a serious obstruction to civilisation even in its simplest forms,—to the growth of industry and production within the limits of a single community. How much more serious is it in obstructing international trade, or the exchanges between different and often distant countries! Even when Commerce has been fully established, it will speedily be restricted, and well-nigh perish, if the supply of international money (gold and silver) should suddenly cease,—a fact which will be strikingly illustrated when we come to describe the Trade with the East.

Doubtless the barbaric nations of Europe who

established themselves upon the ruins of the Roman empire and of Roman civilisation, did not feel, or but scantily felt, the then prevalent dearth of gold and silver as a currency for trade and commerce. But the dearth sensibly operated all the same, and tended to retard the growth of commerce and of commercial production. Among a township of blind or lame men, the obstruction to locomotion from loss of vision will be but little regarded, being universal and a peremptory condition of existence: yet the active powers of the community will suffer all the same. Their life will be comparatively stagnant, even though the cause of the stagnation be not understood, or hardly even perceived. Far more subtly, yet not less powerfully, does a dearth of currency fetter productive industry and the course of trade.

When the Barbarian invasions had exhausted themselves, or had done their worst; when Britain and Gaul had forgotten the civilisation of Rome, and the whole Mediterranean world had been desolated by Goths and Vandals—a dreary dismal period, which we call the “Dark Ages,”—it was in Italy that the Revival began, albeit as a mere glimmering of the new Dawn that ere long was to arise upon what had once more become the Dark Continent. There is a marvellous influence in hereditary civilisation. We own the influence of blood, of descent, among the lower animals,—especially among the most intelligent and most useful of them, such as the horse, the ox, and the dog. Apart from

improved structure and other physical qualities,—apart, too, from a general increase of intelligence, we find that special powers, originally foreign and only acquired by training, become permanent and intrinsic by the force of hereditary transmission. Just as ambling is an unnatural movement for the horse, yet can be and has been made native in some equine breeds; or, less remarkably, as the hairy or woolly coats of domesticated animals become changed or greatly modified by domestication,—as the “coat” of the housed and curried horse becomes short and fine, and as the wool of the sheep becomes finer and more plentiful; still more, as the pointer-pup at once begins to “set” at the scent of game, and as the dog of Mount St Bernard, when set loose among the Alpine snows, at once sets to work to scent out and rescue lost wayfarers of the human kind: even so does the Civilisation of centuries, even among the lower classes, induce an aptitude for industry and the common arts of life: such as we witness in the Chinaman, the heir of the oldest civilisation in the world, who, wherever he goes, carries with him, as a second nature, a *savoir vivre* and an aptitude for ordinary industry, which enable him to successfully compete even with the White Race in its own lands or markets.

While the population of the Italian cities, mindful of old memories, and beginning to throb anew with the commercial instinct, were the first to avail themselves of the returning opportunities for international trade which came with the close of the

Barbarian irruptions and the gradual re-settlement of Europe, a still more wonderful display of hereditary influence and transmitted ability made Rome once more the intellectual metropolis of the continent, an active fountain of civilisation, and restored to her in a new form a European supremacy hardly less mighty than that which she had formerly exercised over the Mediterranean region, the veritable heart and centre of the Old World. The masterful spirit, the instinct and power of ruling, which from its earliest times had been the special characteristic of the *Gens Romana*, asserted itself anew.

Hardly had the western half of the Roman Empire fallen,—hardly had the Eternal City been captured and sacked by the Northern Barbarians, while Empire had bade farewell to Italy and found a new stronghold on the Bosphorus,—than the ruling power of the Roman people, still burning with hereditary fire in the old noble families, manifested itself anew, and necessarily in a novel form, accordant with the character and opportunities of the new times. Hardly had the true Roman Empire—that of the West—expired, than it arose from its ashes in the Papacy. The temporal power of Rome was irretrievably lost. The Eternal City was no longer the mistress of the world, upheld in power by the tribute of many nations. The old wealth was gone; so, also, was the hardy population which had furnished the flower of the Legions. But, undying, the spirit of empire was still there. No longer able to contend with the warlike and chaotic mass of Barbarism which had

flooded Europe, nor with the new States which ere long began to emerge from that chaos—like islets reappearing, and gradually enlarging, as the flood of barbarism subsided,—Rome nevertheless undertook the task of civilising and reconquering Europe. The Empire was revived in a Caliphate; which, from the most modest beginnings, became a spiritual Empire, even prouder and hardly less potent than that of the Cæsars.

Looking forth from the Capitol—still stained, damaged, and befouled by the desolating Huns—the early Popes beheld what had been the well-ordered Roman world, and to a great extent even the fair garden of Italy, covered by roving tribes of barbarous marauders; while the Gauls, Iberians, and southern Britons, who had in no small degree imbibed the old Roman civilisation, lay like submerged meadows, ready to redevelop their fertility as soon as the desolating waters were drawn off; and the people ready to re-accept civilisation as soon as the night of the Dark Ages was passed, and the sunshine of intellect reached then anew.

The Roman Caliphate gradually civilised Europe, and the barbarous hordes who had overrun it, through Christianity; and in Christianising Europe, Rome reconquered it. In extending Christianity, the Roman Caliphs felt they were not only widening civilisation but elevating their own power,—a sacred and stately fabric of power, of which the various peoples of Europe were the arches and pillars, and of which Rome was the dome and the

Vatican the gilded pinnacle. Unlike those of Asia, the Caliphs of Rome employed only spiritual forces. The new Legions were the missionary brotherhoods of the Monks,—each Order as brave and disciplined as the famous Tenth Legion of the first Cæsar. While Christian missionaries were sent forth into many of the dreariest parts of Europe,—founding settlements and building stately abbeys in lonely valleys; not only preaching an elevating religion, but practically teaching the rude population the arts of common life,—the Papacy, in that age of turmoil and darkness, became a public conscience for kings and princes, compelling them to justice and morality in times when no other check upon military power existed.

The work of civilisation must precede the development of international commerce. Under Old Rome, with its plenitude of power, material civilisation had accompanied the march of the Legions. Roads were constructed, rivers bridged; and every settlement had its Romanised town, with public courts, baths, theatres. Roman villas of elegant structure and rich internal decoration abounded, even in the outlandish Isles of Britain, where the long-buried mosaics excite the admiration of modern times; and the comforts and luxuries of Roman life, while creating both commerce and local industry, awoke the rude inhabitants of the region to civilising tastes and ideas, to which otherwise they would have remained strangers. Under the new Rome of the Papacy, the course of affairs was different. Destitute alike of

wealth and of material power, it was through the sentiments alone that Rome then paved the way for civilisation. The preaching of Christianity was really the birth of Modern Europe. The whole continent was then a seething mass of diverse and hostile tribes; and the first want of the times was to replace this chaos by the establishment, so far as possible, of some common bond. There is no bond like Nationality,—which means a community alike of blood, of language, of home, and of past history or career. Failing that, comes the allying influence of Religion,—especially of Christianity, which binds men together by a common Saviour, and by religious beliefs of a potency far exceeding what was possible under Paganism, seeing that these beliefs belong not merely to man's brief earthly career, but to new life and other worlds beyond the grave. To the Christian enthusiast all men were as brethren; and even to the uncultured masses, the rule of a personal Providence, supported by all the hopes and fears of a coming immortality of joy or misery, was a controlling force towards good and against the evil passions of human nature, not less powerful, and far more searching, than the stringent law-enforcing sway of the Imperial Prefect, backed by the ready sword and spear of the Legions.

To re-establish order out of Chaos, and to create some common bond among the swarm of alien and hostile tribes which had overrun the European continent: this was the first great want,—the first step towards the re-settling of Europe, in more or less

organised communities, without which the work of civilisation was impracticable, or, if anywhere achieved, evanescent, as a mere building upon quicksands. And how strong was the bond thus created, and how powerful was the sway of this new and pure spiritual empire of Rome over Europe (things almost incredible but for the testimony of facts), was shown by the Crusades,—the first great event in the nascent Europe of to-day, and the most remarkable manifestation of European unity which has yet been witnessed. Not even under the Alliances of States and Governments has there been such a community of sentiment and action, alike of peoples and of kings and princes, as that which bound all Europe together in the wars of the Crusades.

And with the Crusades began the revival of Commerce and the history of European Trade. Indeed the Crusades commenced with a terrible lesson as to the necessity for mortal men to take heed for their human wants. The religious fervour of the First Crusade is one of the most wonderful phenomena in human history. With the cry of "*Dieu le Veut!*" the enormous masses of rudely armed men, and including even women and children, amounting in numbers to about a million, streamed forth from Western and Central Europe careless of supplies,—scorning the terrors of the unknown way, through the heart of a continent which was still little better than a wilderness of forests and marshes,—through strange and hostile peoples, too,—thinned daily in thousands by hardships, disease, and actual famine,

yet perishing with hallelujahs on their lips and the passion of an undying faith in their hearts. They reached Byzantium, that grand city—the like of which was not elsewhere in the known world, with its royal pomp and impregnable walls (upon which its imperial founder had expended upwards of two millions sterling), and with all the stores of knowledge and the practice of luxurious life which there alone remained from the golden time of Imperial Rome. Constantinople was the Crusaders' one brief halting-place in the long journey from Western Europe into Southern Asia,—the sole respite from hardship and hunger, from toils of the march and the turmoil of fighting. Yet the very Cæsar whom they aided so much was a traitor to them; and so, half-driven from their resting-place, and inspired anew by the thought of Jerusalem in the hands of the Infidels, they plunged into the wide plains and mountains of Asia Minor, and fought their way through, to the war-cry of "God wills it!" That they reached Palestine and actually captured by siege and storm Jerusalem is the greatest marvel of all, and the most impressive proof of what religious enthusiasm can do, alike in granite-like patience and volcano-like fire and fervour,—bearing onward the marching mass, which yet dropped and perished in fragments at every stage, until Godfrey and Tancred poured the feeble yet fiery warriors of the Cross in hot assault over the lofty and solid ramparts of Mount Zion, and the streets of Jerusalem ran red with the blood of the fairly vanquished Mussulmans. Christian

Europe had mastered the Mahomedan East upon its own fields and in the very centre of its power.

Strangely, indeed grandly, successful as the First Crusade was, it taught a lesson against its repetition. It may safely be said that no new epidemic of religious Faith, no second wave of religious enthusiasm, was possible on the high pitch by which the First Crusade was inspired. Daring and enthusiastic as were the subsequent Crusades, order and method, so far as was then possible, replaced the brave carelessness of religious Faith. Commissariat had to be thought of; and the sea-route was seen to be far preferable to the long march through the desert forests of southern Germany, the marshy plains of the Danube, and the hostile region of Lesser Asia. The mere preparations for each subsequent Crusade, inadequate as these were, spread a bustle of trade and industry in each country which joined in these great military expeditions, by which Europe, not in madness (as so many think), but by an instinct of wisdom, strove to arrest in their own home the now uproused forces of Asia, gathering for the attack, and preparing to pour in a conquering flood over the Western world,—as they actually did, to the subjugation of half of Europe, as soon as the Crusades, the counter-stroke of Christendom, failed, and the baffled West had despairingly to struggle in its own home against the invading armies of the victorious East. The Crusades, we repeat, were no mere act of religious insanity: rather, they were like a sally made from a beleaguered city against the hostile army when

gathering in the trenches for the assault. Moreover, it was no isolated enterprise, but a link in a long chain of historical sequence and momentous events. The Crusades were one round in the world-old duel between the East and the West,—a glorious though half-blind rally of infant Europe, to assert its independence of the vast old continent of which geographically it is a peninsula.

European Commerce—which since then has overflowed, and in no small degree civilised, the world—was born amid the shock of arms when the nations of Europe were still gallantly and enthusiastically keeping at bay the once-more gathering and westward moving forces of the East. As the mighty Crusading movement passed from the peoples, exhausted by their one grand tumultuous effort, into the hands of the warlike princes and kings,—when Richard of England and wily Philip of France became the leaders of those military expeditions; and when mail-clad barons and knights were conspicuous in the ranks, not destitute of money, and preferring to keep their vows by desperate gallantry on the field rather than by ascetic practices on the march,—the mercantile classes found it a profitable enterprise to contribute to the transport and commissariat of the Crusaders. There was no asceticism in the tents of the Lion Heart and his stalwart comrades in war; nor on board the bark in which Richard bore the lovely Berengaria from luxurious Cyprus to the scene of his wellnigh fabulous prowess on the plains of Palestine. After the first Crusade, no one thought of wasting the fighting

power of the West in dreary marches through the desolate and semi-hostile region of Central Europe. Then, as always, the sea offered the quickest and best route to the scene of action. The chief route taken was through Italy; and it was chiefly from the Italian seaports that the crusading fleets sped on their course to Acre, Jaffa, and the other landing-places on the coast of Syria. At the present day, when every one can remember the onerous character of the Anglo-French Expedition to the East in 1854—which, substantially, was by no means very different in its object from the Crusades, and the outcome of which was the landing of little more than thirty thousand soldiers in the Crimea—it may appear strange that Italy, in the Dark Ages was able to supply shipping and stores more or less adequate for the conveyance of the Crusading hosts. Nevertheless it was done: not merely individual traders but mercantile syndicates, indeed whole Italian cities, taking a share in the commercial part of the enterprise, and finding therein the beginning of their own wealth and greatness.

The Crusades, it is universally acknowledged, gave the first great impulse to the revival of commerce in Europe, and to the reopening, however slight, of the trade with Asia. These great expeditions—in which English and French, Germans, Spaniards, and Italians took part—did much to break down the isolation of the various new States which had sprung up on the ruins of Roman Europe, and which were then acquiring a definite form and consistency.

Also, in traversing Europe, the Crusaders became acquainted with other countries than their own ; and from Italy, from the Byzantine empire, and not least from their contact and intercourse with Asiatic civilisation, they brought back with them not only a widened knowledge, but a taste for the refinements of life, which, although long confined to the palace and the castle, gradually spread among the middle classes. The merchants, especially, came to know alike the produce and the commercial wants of the different countries. Naturally, the Italian merchants took the lead, and, under the name of Lombards, settled in and monopolised the commerce of the chief countries of Europe. It was the age of Venice and Genoa, of Florence and Pisa : the heyday of the Italian Republics,—States like Athens of old, where the city was the republic, supported by dependencies whose trade and tribute ministered to the grandeur of the parent city, and enabled the merchant-princes of Italy to become the patrons of the new Christian Art of Europe.

Another fact to be remembered is, that the Crusades were the first means of bringing into Western Europe a new supply of Money. Once more—although on a smaller scale than in the previous cases—Conquest effected a transference of the precious metals ; and the wealth and treasure of stately Byzantium became diffused among the young and rude nations established on the shores of the Atlantic. The plunder of Constantinople by the Venetians and other Crusaders probably transferred more metallic

wealth to western Europe than all the commerce of many preceding centuries,—thereby mitigating the monetary dearth which weighed like an incubus upon the nascent industry of the continent.¹ No doubt, as Mr Jacob says, a large portion of this sum would be taken by the Crusaders into Asia; but, at the very least, it must have recouped the Crusading princes and chiefs for their large previous expenditure in Europe, as well as served to pay for the European shipping and supplies required in the Asiatic portion of the expeditions.

Europe was settling; wealth, albeit on a small scale, was beginning to accumulate. While the luxuries of the East, imported through Italy, found a market in the European Courts, the Italian merchants discerned that a counter trade could be profitably established with the Northern portion of the Continent. Land-routes of trade were becoming possible through Central Europe—direct lines of travel between the North Sea and the Adriatic: destined ere long to enrich Nuremberg and the old cities of Germany, until those routes were closed by the anarchy and desolation of the Thirty Years' War. But it was by sea that the Italians first opened a regular traffic with Northern Europe. In those times, navigation was in a rude stage—ruder, doubt-

¹ If the statements of Gibbon be correct, the Emperor Alexius paid to the Marquis of Montserrat the enormous sum of sixteen hundred pounds of gold; and, on the second capture, when the city was delivered over to the allied armies, the booty of the captors which was brought to the public account (besides what was secretly appropriated by individuals) amounted to eight hundred thousand pounds.

less, than it had been even under the Roman Empire. The commercial voyage from Italy and the ports of the Mediterranean to North Germany could not be accomplished in a single voyage: and the necessity arose for commercial depôts in the North, where goods could be stored and exchanges of commodities carried on, in the intervals between the voyages. This was the origin of the Hanseatic League. Lubeck was the first town which became the Northern emporium of this trade with the Mediterranean; but by-and-by neighbouring cities became members of the Commercial League; and the trading instincts and genius of the Flemings, second only to that of the Italians, organised a system under which the still rude products of northern Europe were regularly exchanged for the more refined commodities of Italian commerce.

Previously, in the Dark Ages then drawing to a close, the remarkable dearth of the precious metals which prevailed throughout Europe had been little recognised.¹ The extent of the dearth is shown in the fact that towards the close of the fourteenth century, despite the wide adoption of Barter, the value of Money had become threefold what it was in

¹ The quantity of gold and silver money in the Roman empire, which at the death of Augustus, in the year A.D. 14, is reckoned by Mr Jacob at 358 millions sterling, is estimated by the same authority to have fallen to 200 millions in A.D. 200, and to 100 millions in A.D. 400; to only 50 millions in the year 670; and finally to 33½ millions in 806,—after which date the produce of the European mines just sufficed to replace the loss and wear, thereby maintaining the stock of money at the same amount, or between 30 and 40 millions, down to the discovery of America in 1492.—See *Jacob*, vol. i. pp. 225 and 237.

the age of Augustus. Yet this statement is far from expressing the dearth of the precious metals which had followed the downfall of Roman empire. Had the commerce and production of Europe in the fourteenth century been equal, or nearly equal, to that which prevailed when Roman power and civilisation were at their zenith, and before the western and southward irruption of the Barbaric hordes had reduced Romanised Europe to chaos and desolation,—in other words, had there been as much requirement for Money in the fourteenth century as had existed in the reigns of the Cæsars, the rise in the value of Money, or of gold and silver, would not have been merely threefold, but vastly and incalculably greater. Only, there is a point in monetary scarcity where the dearth ceases to be shown by increased value of money, because of the cessation of the ordinary requirements for money, owing to the monetary obstructions which render trade unprofitable. A dearth of currency, in fact, tends to hide itself by paralysing the demand for it.¹ Even in its outset, the dearth of the precious metals—the sole Money of ancient times—had wrought dire ruin in Italy, and doubtless in other central parts of the Roman world; but, under the much greater dearth of gold and silver which prevailed in the fourteenth century, no such disasters were possible in the Europe of that time. Money had wellnigh disappeared from general circulation. Of necessity, its use had been abandoned for Barter: and thus the very decay of

¹ See *infra*, chaps. xvi. and xx.

civilisation saved Europe, in the Dark Ages, from the evils of a revolution of prices and of a monetary dearth, which otherwise would have smitten both communities and individual fortunes visibly, like a Plague.

Nevertheless, even in the Dark Ages, the scarcity of the precious metals—of Money—although inflicting no individual or even palpable loss, was weighing all the while like a nightmare upon the breast of Europe. The very fact that this dearth necessitated the adoption of Barter, is a proof and partial measure of the evil. It perpetually acted as an obstruction to the exchanges of Trade, and consequently to the value of production and the earnings of industry. True, we repeat, this circumstance appears to have been little thought of at the time, or indeed was not consciously felt. Of the two uses of Money—namely, to store wealth and to exchange it,—neither was in those times much desiderated. In the first place, there was but little growth of wealth—little reserve-wealth to store—no yearly accumulations which it was desirable to keep in compendious and exchangeable form; while the advantage of keeping wealth in this compendious and most movable form was greatly nullified by the ease with which it could be grasped and carried off—whether by despotic princes or private marauders—in those chaotic times when Might was Right, and when orderly government and peaceful rule were non-existent. Indeed it was chiefly owing to the perils of the possession and transmission of specie

that modern Europe has inherited from those times the system of bills and commercial paper-currency. It is a remarkable characteristic of the Jewish race that while all peoples more or less engage in the work of money-making, the Jews prefer to do so by dealing in Money itself,—reaping their gains directly from, and in the form of, the desired object ; instead of indirectly, by industrial production or by traffic in commodities more or less convertible into money. And while thus dealing in the precious metals, whether in high Finance or in the humbler work of the cambist and money-changer, the Jews of those days devised and adopted the system of transmitting money or wealth in the form of bills of credit,—partly for safety, and partly as an economy to compensate the prevalent dearth of the precious metals.

In the fifteenth century, the large stock of the precious metals acquired by Imperial Rome, after a great continuous diminution, had almost entirely disappeared. The chief portion of that supply had been acquired by conquest from Asia and Africa ; and not only had that supply been long cut off, but the peoples of the East, both from Asia and Africa, had settled as conquerors in a large portion of the European continent. The sole source of monetary supply left to Europe was its own mines ; and at the end of the fifteenth century, when Columbus sailed for America, the entire produce of the European mines in gold and silver only amounted to £100,000 a-year. And the entire stock of the precious metals in Europe in 1492 is believed to have been little

more than thirty millions sterling.¹ The chief authority on this subject (Mr Jacob) has estimated that the total gold and silver then existing in Europe amounted only to between thirty and forty millions sterling. Such estimates, it is true, are mere conjectures. It would have been impossible in the fifteenth century even for a contemporaneous inquirer to have correctly ascertained the amount of coin and bullion in existence in the various countries of our then benighted continent: much less can any satisfactory estimate of that kind be made in our time. Nevertheless it is useful to quote Mr Jacob's estimate, as conveying to the reader a definite impression of the scarcity of the precious metals which then prevailed. That it is not correct is highly probable, or perhaps certain: but that the amount of gold and silver in Europe was then exceedingly small is beyond doubt, and it is quite as probable that the amount was somewhat less than Jacob's estimate than somewhat larger. Thus, in so far as any opinion

¹ The scarcity of coin in Europe, during the Dark Ages, may be illustrated by the following prices of various articles in England in the reign of Ethelred, about the year 997, converted into the sterling money of the present day:—

Price of a man or slave, £2 16 3	Price of a cow, . £0 6 2
„ a horse, . 1 15 2	„ a swine, . 0 1 10½
„ a mare or colt, 1 3 5	„ a sheep, . 0 1 2
„ an ass or mule, 0 14 1	„ a goat, . 0 0 4½
„ an ox, . 0 7 0½	

—See *Jacob*, i. 315.—What would our Jamaica Planters have thought if, on the abolition of slavery, they had been compensated at the rate of barely £3 per head of the emancipated Negroes! At the same time it is to be noted that, in Ethelred's time, the price of a hawk or a greyhound was the same as that of a man; and the robbing of a hawk's nest was as great a crime in the Saxon laws as the killing of a human being.

or idea upon the subject can be formed at all—and the human mind craves for, and insists upon forming, *some* idea of what interests it,—it may be said that throughout all Europe in 1492, the amount of gold and silver was not larger than what has recently been held by a single European Bank—whether the Bank of England or the Bank of France,—and no more than had been received merely in legacies by the Emperor Augustus fourteen centuries previous !

Europe was then beginning to throb with national life, and to settle down into a system of recognised States, each of which had begun to cultivate the arts of life. The old Barbarian hordes had settled down into localised communities ; and to a large extent indeed, they had disappeared,—having become amalgamated with or actually absorbed into the earlier population, which they had done their best to plunder and exterminate. New peoples had been formed, and now occupied tolerably defined areas of the continent. France, Spain, Germany, Britain, had taken their place on the map as independent countries,—each a familiar name to the others, whether as an ally or a foe. While the continent was thus becoming paved not only for the growth of industry, but for international trade, and while Byzantium, Venice, and Genoa kept alive the feebly revived trade with the East, not a few adventurous spirits, enterprising merchants and gallant wonder-seeking travellers, penetrated far beyond the confines of Europe,—rousing the curiosity of the mercantile world by their narrations, and inspiring projects of far-reaching Trade.

Yet, for each and all of these things Money was needed. For the adoption, or revival, of the Division of Labour, obviously Money was indispensable: but really, it was hardly less needful in all the other departments of progressive national life. The first requirement of national life and settled communities is an adequately powerful Government, with an organised system of administration. For this purpose the taxes, the contributions of a people for the maintenance of a Government—whether in the person of a single Chief or King or in the form of a Republic (which in those times was always oligarchical)—must be paid in money, not in barter or “payments in kind.” Hence, for example, the new power of the Spanish monarchy when the influx of the precious metals enabled Ferdinand and Charles V. to raise a revenue in specie. Wars, too, howsoever calamitous in themselves, are often indispensable, even beneficial,—especially among a series of embryo States, whose dominions or territories have not yet been settled in accordance with the power and circumstances of the respective peoples. The system of Barter—which includes contributions to the State of man-service, usually military service, and which had sufficed for the forays and rude conflicts of limited scope which prevailed during the Dark Ages—was wholly inadequate for the organised warfare and expeditions of disciplined and well-equipped troops by which national or kingly ambition gradually brought Europe to a territorial settlement and comparatively stable equilibrium of national power. In

short—apart from domestic and, still more, international Trade,—progress alike in individual and national life was impossible without a circulating medium: by means of which industrial labour could be hired and paid for, commodities interchanged, and transfers or contributions of wealth (as in taxation, &c.) made in the most effective form, readily convertible (as money is) into any other kind of property that may be desired.

For lack of such a currency—which in those days could only be found in gold and silver,—an incubus lay heavily upon young Europe. The state of affairs was like that only too familiar in this Northern country, when the rigours of a severe Winter extend far into the Spring or incipient Summer of the year, —when the pregnant Earth is throbbing everywhere with the germs of new life, yet is repressed and fettered in its vitality by the cold and blighting East winds, or still remains covered by the wintry mantle of snow, through which the nascent verdure seeks vainly to emerge into the genial warmth and brilliance of the sunshine. Let the south wind blow, and the thick damp haze roll off from the sky, and how magical the change! Sudden, as at the wave of a wizard's wand, the face of Nature starts into visible and lovely life. The melting canopy of snow reveals verdure everywhere, lighted up by the blossoms of the flame-like crocus, of the welcome primrose, daisy, and other early flowers: and we feel that at length another generation of life and beauty has begun, and will go on unfailingly to some fresh epoch

of fruitage and harvest. Come what may, man then knows that another growing-time in the life of Earth has begun. The Winter doubtless will come again,—but not until the Year has carried us a new stage forward, and has left its record alike in the skies of the universe and on the career of the human race.

Even so, to the “cribb’d, cabin’d, and confined” Europe of A.D. 1492, came the discovery of a New World: and one which, in its rich mines of gold and silver, supplied the much-needed currency, or medium of exchange, which, then largely requisite in every country of our reviving continent—of the New and post-Roman Europe, which was destined to become for the whole globe what Italy under the Cæsars had been in relation to the Mediterranean world—was still more requisite, nay, absolutely indispensable, to enable the European peoples to connect their powers and industry with those of the hitherto unknown or forgotten regions now coming into Man’s startled and wondering view,—numerous and bright as the starry orbs of space gleam forth around our planet in the twilight skies. While America rose like a new world out of and bisecting the great Oceans—emerging unexpectedly out of the seas of the West, like a home of the sunset amid the vast expanse of waters separating Europe from Eastern Asia,—the realms of Cathay and Ind reappeared like realised fables of the Past; and the Earth as it is, became revealed in complete outline by the circumnavigating of Africa and by the world-circling voyage of Magellan.

CHAPTER VIII.

THE SILVER AGE IN AMERICA.

REVERSING the chronology of Fable, in human history a Silver Age preceded the Golden one ; and the memorable events of that earlier epoch are highly interesting and instructive, especially when viewed in connection with the not less striking and momentous phenomena of the present age. In most or nearly all of its concomitant events the Silver Age was much grander than the later one which the present generation has witnessed. Indeed, what can compare with the discovery of a New World, such as preluded and alone created or rendered possible the Silver Age ? Nor could those twin discoveries—of a new continent and of new silver-mountains of surpassing richness—have happened at a more critical epoch than when European Civilisation (destined to be again, as it had been in Roman times, the Light of the world) had all but expired in the Dark Ages. Nor could the effects of those discoveries have possibly co-operated in a grander work than that of starting Europe on that marvellous career, alike of

Power and of Intellect, which has given to our continent, as a whole, a dominion of the earth as peerless and beneficent as was that of Imperial Rome over the *orbis veteribus notus*—the much smaller world then known to the common eye or knowledge of mankind.

There are some striking differences, however, between these two mighty epochs in human history, and which tend to render, or do actually render, the Golden Age of these later times as memorable and momentous as that of its Silver predecessor. Both the events and the effects of the Silver Age were as diffused in time as those of the Golden Age have been speedy and concentrated. A single generation has witnessed the entire course of the Golden Age, at least in its peculiar and grandest features, and still lives to see the all-brilliant Golden Day (for it is but a day in the life of nations, and a mere sparkling moment, a gold-grain of Time in the career of mankind) already waning to its close. No mortal eye can discern the Future; but, even allowing for a prolonged sunset, and for some unlooked-for after-glow, arising from further but lessening discoveries of Earth's golden treasures, it seems at present as if many an individual who was born before the Golden Age began—possibly many a one who can intelligently remember the *furor* of the first Discoveries—may live into a new and less fortunate period when the events of this brilliant epoch will be but “as a tale that is told,”—listened to by the young as “an old man's tale,” or eagerly read of as a brilliant chapter in the past history of the world.

Very different was the course of the Silver Age. It was hardly noticed in its beginning, save as tales of daring enterprise and successful but ruthless plundering and booty. As regards monetary effects—those which seem, and which commonly are held to be, the characteristic and specially distinguishing signs or proofs of vast new supplies of the precious metals—the Golden Age has produced its maximum effect within ten years, if not within half of that short period; whereas, if we take the beginning of the Silver Age as synchronous with the discovery of America, wellnigh a long lifetime of threescore years and ten passed by before any effects became discernible in the value of Money; and a full century and a half elapsed before the monetary effects of the Silver-discoveries reached their maximum. On the other hand, how marvellously the greater was the Silver Age in its effects upon Money! Even when the present gold-supply was at its height, and also was operating most powerfully, it hardly produced any change in the value of gold or of Money,—its vast powers being wellnigh exhausted simply in sustaining an increased amount of Trade without the rise in the value of Money which but for that increase would have been unavoidable. In contrast to present experience, when the Silver Age reached its culminating point, the value of Money was revolutionised, and Money was found to have lost nearly three-fourths of its value. £400 in the second quarter of the seventeenth century counted for no more than £100 had done a century previous. The Rate of Interest, the

value of Money on loan, shared equally in the decline, —falling, according to Adam Smith, to only one-sixth of what the “rate of usance” had been prior to the discovery of America. No similar revolution in the value of Money has ever been known in the history of civilisation. And yet, owing to the slowness of that change—the long period which elapsed before the monetary revolution reached its climax—the hardships which such a change inflicts upon the moneyed classes were not severely felt; and, as usually happens when a revolution in the value of Money is in progress, hardly in any quarter were either the consequent hardships or the far vaster benefits clearly discerned and attributed to their right cause.

I can write but by the light of the Present and the experience of the Past. It is probable that after the silver-mountain of Potosi had been discovered, and, still more, when the precious ores began greatly to decline in richness, some men of that day may have deemed that the Silver Age was already on the wane, —just as it seems to us at present with respect to this Age of Gold. Nevertheless (a strange and instructive fact it is!), although Potosi had revealed its scores of silver-veins to the avaricious Spaniards, —although the yield of the ores at large had declined to only one-fourth of their early richness,—and although the chemical process by “amalgamation,” supplanting rude smelting, had done its best, while the requisite quicksilver had been found in abundance in the Huancevelica mine, —although all

these things, so peculiarly favourable to the production of Silver, had occurred before the end of the sixteenth century—justifying, even to most cautious thinkers, the conjecture that the Silver Age would soon be an epoch of the past, and certainly that the supply of silver, however long it might continue, must steadily decline,—despite all these things, so ominous and apparently so conclusive as to the future decrease of the supply of Silver, the strange fact occurred that the produce of the Mines actually continued for three centuries, not merely unimpaired, but with steady increase; and that the American supply of the precious metal was larger at the beginning of the present century than it had ever been before. Many of the mines, it is true, became exhausted, but hundreds of new ones came into view, as the daring Spaniards extended their explorations of the New World.

Thus, if we look at the duration of the Silver Age, yet believe that the present Age of Gold is already far past its best (which, be it true or not, is the sole view which at present can reasonably be entertained)—the comparison justifies our remark that despite the far superior grandeur of the general features of the former epoch, they were so diffused in time—operating through so many generations—that in several respects (albeit not in the effect upon the value of Money) they may be rivalled or indeed surpassed in historical interest and impressiveness by the inferior but quick-moving and highly concentrated events and phenomena of this later Age.

There is another and very different set of causes or considerations which justify the opinion that, albeit absolutely unparalleled in historical importance, the contemporaneous impression upon men's minds, perhaps we may even say upon the condition of the world, produced by the marvellous events of the earlier and most characteristic period of the Silver Age, was by no means commensurate with the actual and enduring magnitude of those events, and even (it may be said) inferior to the contemporaneous mental impression and actual effects upon the condition of mankind which have been produced so rapidly by the Gold-discoveries of the present century. In truth, in its moral aspects, or the mental impressions to which it gave rise, the grandeur of the Silver Age was robbed of much of its power by the prevalent ignorance and slow conveyance of tidings, — even as a thunder-clap would be robbed of its sound if occurring in a vacuum or beyond the limits of our atmosphere.

The Golden Age began with the discovery of gold-mines of marvellous richness,—in countries remote and unsettled, but which had long held a known place upon the map of the world. The Silver Age began, above all, with the discovery of a New World. It is impossible to overrate, it is difficult even to realise, the startling and profound impression, upon intelligent minds, of the discovery that the Earth was nearly twice as large as had been known to its civilised inhabitants. A New World!—a great continent beyond the Atlantic, lying in the heart of the

vast expanse of waters which intervenes between Europe and Eastern Asia, and stretching from the Northern almost to the Southern Pole,—a region surpassing in size the entire area of the Roman Empire. Africa had not then been circumnavigated; all that was known of it even to the learned and to mercantile adventurers was the northern strip, fronting on the Mediterranean. The whole northern zone of Europe and Asia was still unexplored; Russia was hardly less known than the ancient Scythia had been; and all Eastern Asia was a region of haze or darkness, within which sparkled from afar the great but still (to the European mind) half-fabulous empires of India and Cathay. And lo! a great continent suddenly appears amid the wastes of the Atlantic,—in the quarter where, according to ancient belief, lay the Gardens of the Hesperides, Isles so auriferous that the very trees bore yearly crops of golden fruit.

And then the tales brought home by the early discoverers!—tinged with romance by their narrators, and gathering the glowing hues of fable as they spread from lip to lip through Europe—solely on the varying wings of human speech, and at an epoch when popular imagination in our Continent was at its zenith, and poetry possessed a boldness and reached an elevation to which it has never subsequently attained. There was a glamour in the discovery of this New World which subjected the very senses, as well as imaginations, of the adventurous explorers. In Florida—a land whose floral wealth and beauty

still justify the name given to it by its Spanish discoverers—in that land of soft climate, strange plants, and beautiful scenery, was it not known that there, amid its forest-hidden lakelets, were the Fountains of Youth, which one had only to quaff and be young for ever! Nay, had not some daring Spaniards, hunting with the Indians, actually seen those fountains sparkling in full play within the mazes of the verdurous forests, although never more could the entranced discoverers find their way back to the spot! And did not the Indians themselves—those who had lighted upon the miraculous Fountains in the course of the chase, never cease to pine and search after them: for ever haunted by the sweet sounds of the fountains, and with the joyous waters gleaming on their dream-sight as they sat with half-closed eyes, listless among their brethren, pining away after their quickly-lost Utopia. In the wilds of Guiana, too, had there not been seen cities of gold—the roofs covered and the very streets paved with plates of the precious metal? Nay more,—so strong were the dreams and yearnings of that time!—did not Columbus himself believe that he and his Spaniards had reached the very summit of the world, the verge of Paradise, and that up on one or other of those sun-kissed mountain-tops they would come anew upon the long-lost Garden of Eden! The whole of this new Continent, also, was a conquest for Christ—a New World of great beauty and Arcadian simplicity to be added to the Empire of the Cross! The discoveries of Columbus and of the daring con-

querors and explorers who followed him, appealed to the imagination of all classes. Monarch, priest, hero, merchant, and philosopher—each found a personal interest in those strange and startling tidings. The Planet of Man's abode was proved to be far different from what the ablest of philosophers had conjectured or believed. Here was a New Continent for human enterprise—for conquest, settlement, and commerce; vast and seemingly fabulous stores of gold and silver; a New World added to the dominion of powerful Spain, to the sway of the Christian religion and of European civilisation.

But how small was the portion of mankind to whom, after all, these marvellous tidings effectively appealed! Never before, nor since, has mankind been brought face to face with such momentous discoveries; yet how narrow was the public which they could appeal to,—how small the class in Europe which then was able even to learn the news, and, still less, to intelligently receive it! The tidings came like a thunder-peal, but there was no atmosphere to propagate and re-echo the sound. There were few books, no newspapers, and but little education even among the higher classes; while in all countries the masses of the population were practically *ascripti glebæ*, willingly tied to the farm or hamlet of their birth—as unmigratory, and as unwilling to move, as the limpet which holds on blindly to the rock, neither caring for nor capable of knowing the mighty world of waters around it, and which every noise or commotion only warns to hold tighter

to its poor abode. To many of the higher ranks, among whom personal gallantry was an hereditary possession, the tidings of the New World came like a trumpet-call to deeds of arms, to conquering or plundering voyage and exploration ; and the Church of Rome, strengthened anew by the militant Order of the Jesuits, prepared to send forth its Missions to American heathendom, which for long were the only outposts of civilisation in the New World—all too few and too weak to check the rapacity of European selfishness among the ignorant but on the whole gentle-hearted natives of the new-found Continent. But to the general population of Europe the discoveries of Columbus were heard, if heard at all, with a dull ear, and actually with far less interest than the death of a reigning monarch or even of some neighbouring squire. The international spirit was unknown, save in the form of rivalry, enmity, and war. *Stranger* and *enemy* were synonymous terms. And finally, the means of locomotion, both for persons and merchandise, were so limited and costly that a travelled man was a wonder ; and trade between neighbouring towns and districts was as difficult and more scanty than that which nowadays connects continents and blends together the interests of the remotest nations on the face of the earth. In short, to the general population of Europe in the earlier and characteristic period of the Silver Age, the New World with its wealth of mines was utterly out of reach ; and a voyage thither entered as little into the mind of the masses as if it were a journey to the Moon.

In truth, the new-found continent in the West was almost as inaccessible to the general population of Europe as if it had belonged to some other planet. The ocean had not then been bridged, as now, by steam-navigation. Even the narrowest of sea-channels, such as separates Dover from France, was an insurmountable barrier to all but a few, or to warring hosts supported and conveyed by the treasures of the State. Had the discoveries of Columbus been reserved until our times, the attractions of a new Continent, highly fertile, sparsely peopled by an uncivilised race, and abounding in the precious metals, would have wellnigh emptied Europe of its labouring and less fortunate classes. But such an effect of those discoveries four centuries ago would have been as undesirable as it was impossible; and the very ignorance and lack of the means of locomotion—in themselves deplorable—served to promote the subsequent brilliant career of Europe, while reserving the New World as a haven for mankind in later times, when such an outlet alike for human wants and aspirations had become sorely needed as well as keenly appreciated.

Whatever Europe lacked at the opening of the sixteenth century, it was not space or "elbow-room" for its population. And had much population been then withdrawn from our continent, its subsequent brilliant advance in civilisation would have been seriously retarded. Dire famines and deadly plagues at times swept over Europe; but these were not due, in any reasonable sense of the phrase, to the pressure

of population upon the means of subsistence,—but simply to ignorance, to the flood of barbarism which had devastated Europe upon the fall of the Roman Empire—to the Night of ignorance and lawlessness which had settled down over the world after the sunset of Roman civilisation, and through which the New Nations had not yet groped their way into renewed Day. With reference to those times, we cannot use the now common phrase, the “masses,” when speaking of the general population: for “masses” there were none; and hence one of the very reasons why the people were so slow in recovering from the Dark Ages,—the evil, albeit not unmixed, which the descent of the Northern barbarians spread over Europe. It is only when population grows dense that the mind becomes quick-witted,—that the electric thrill inspires a community of sentiment and desire, and that the conscious power of numbers gives force to ideas which in a sparse population, if born at all, would have speedily expired like scattered sparks.

It is also in a dense population that civilisation progresses, as it were, from necessity, and at the same time possesses the force, the amount of human power requisite to carry out the schemes (often commonplace though they be) which originate in and are forced upon their adoption by actual and pressing needs. That “Necessity is the mother of Invention” is a proverb which simply states an historical fact—which embodies in a simple yet striking phrase the long career of human progress in the

arts and industries of life. It is easier, more secure, and far more comfortable to support life by the produce of the soil than by the toilsome and precarious spoils of the chase; yet peoples rarely or never take to Agriculture, with its steady and various yield, so long as they can simply prey upon their fellow inhabitants of earth. In all things men utilise what comes first to their observation. Hardly will they even domesticate the animals for their use, so long as these abound in Nature's pristine plenty. Man beheld the roving herds of the buffalo and the antelope, which occupied the earth before himself appeared on the scene, together with the wild beasts with which he had to war; he beheld flocks of the bustard and the ostrich, and the fish abounding in the primeval rivers or in still denser and more prolific masses in the sea; and not until these visibly existent supplies of food grew scarce did men willingly apply themselves to the culture of the soil—to the steady but far less toilsome development of the fruits and food-crops with which the earth teems so abundantly.

There was yet another reason why a discovery so momentous and valuable to mankind as that of the New World produced so little effect upon the population of Europe. The New World was held as a monopoly by the State which had discovered it,—by the State which had fitted out the exploring expedition, and from whose ports Columbus with his small vessels had sailed on his adventurous voyage. According to the custom of that time, States were

rewarded for their valuable exploring expeditions by obtaining patent - rights over the new territories whose existence they revealed to the European world. In recognition of the discoveries of Vasco da Gama, the Papacy had assigned to Portugal a monopoly of dominion and even of exploring adventure of the Atlantic coast of Africa and of the entire eastward sea-route to India. In like manner, a Papal Bull assigned to Spain a monopoly of dominion over, and of further discovery in, the New World — except in the eastern portion of South America which had been accidentally discovered by the Portuguese. The Catholic Majesty of Spain beheld in the New World simply a grand addition to its empire,—a domain to be strictly guarded against the intrusion of any other State or people. The King of Spain became also monarch of “the Indies.” Spain had found a new territory, possessing rich stores of the precious metals; and the first object and supreme consideration of the Spanish Government was to exclude all the other States and peoples of the world from enjoying the advantages of the new region. None but Spaniards were to settle in, or even visit, the new-found continent. Nay more, the other Powers were prohibited from even trading with it. America was treated by Spain with as strict rights of possession as a man may treat his garden or farm. Indeed, with the jealous spirit of the age, Spain exercised her monopoly of possession with what nowadays appears the height of foolishness. The owner of a garden or farm, when he

cannot fully cultivate it himself, calls in others to help him in the work of making his property more valuable and to himself more profitable. America, then lying in a state of nature, was immeasurably too large, and its resources far too extensive, to be developed single-handed by the mightiest State or Empire which the world has yet seen. But Spain cared not for that. Granted that the American Trade, nay, even the American Mines, were too extensive to be developed by purely Spanish power, — what then? By peremptorily excluding other peoples, however undeveloped or unutilised might remain many of the wealth-producing and revenue-yielding districts and resources of the New World, would not the Spaniards at least obtain the best of the good things for themselves? They would possess the cream, though the milk were wasted. Even in our days, it is true, there are some States (like Russia with respect to Siberia) which are so jealous of foreigners as to prefer to leave territories in a state of desert, and even mineral resources unworked, rather than throw open the field to subjects of other States. But this is the exception nowadays; and a Government is held to be mad or barbarous which does not invite foreign enterprise, wealth, and labour to develop resources which are beyond its own power to utilise. Nevertheless we need not be surprised that, in those former times of bitterest international jealousy, Spain should have treated the New World as a monopoly, and should have exerted her power, as the greatest navigating

and also greatest military State in Europe, to jealously exclude all of her neighbours from the silver-teeming continent of the West.

Upon these various accounts, then, one can in great part understand how it happened that the discovery of a New World—even although abounding in the precious metals which so peculiarly attract all classes, vulgar and learned alike—produced so little direct effect upon the population of Europe. First, there was the prevailing ignorance—not merely an absence of printing and its news-spreading publications, but even an inability to read such news, had there been any,—whereby the tidings of the Transatlantic discoveries failed to reach the ear, and, still more, to stir the dull minds of the general population. Secondly, there was the inaccessibility of the New World, from lack of oceanic navigation—nay, almost of roads and land-conveyance; so that people were well content to live and die on the fields where they and their fathers had been born. Thirdly, there was the recognised monopoly and exclusive dominion of Spain over the new-found world in the West.

Further, under the attraction of a New World and of new Mines, even had the circumstances of the time permitted a ready flow of emigration from Europe to “the Indies”—as the first-discovered central portion of America was then called,—even if the lower classes of Europe had been capable of the desire, and had possessed the means, to better their fortunes in the New World, there actually was little or no field for their labour. There is a great and

striking difference between silver-mines and the forms in which auriferous deposits are most frequently found. As we have seen, the vast golden treasures of California and Australia were open to rude Labour, and needed not the aid of Capital to work them. The gold, richly distributed in sand or gravel spread over the surface of the country, could be gathered by the poorest labourer, who needed at most a shovel and wash-pan to possess himself of the gold-dust—the flakes and scales, with occasional nuggets, in which the yellow ore had been primevally distributed by the disintegrating operations of Nature. But silver is never so found. It always exists in narrow veins embedded in the rocks,—sometimes cropping out at the surface, but reaching far down into the rocky depths of the mountains. For the gathering of such treasure, the labour of a poor man, or of any number of poor men, is of itself wholly vain. Labour, of course, is indispensable: but what attractions were there for European labour if then employed on the silver veins of the Andes? Immigrants from Europe must have worked simply as day-labourers, receiving wages, but unsharing in the masses of precious ore which their labour might unearth. The work in the mountains and in the depths of the mines would have been even harder than what was their lot in Europe; nor would there have been any compensation in the rate of wages. Indeed, would the comparatively independent and refractory labour from Europe have been employed at all, when the New World supplied

a vast amount of labourers who dared not rebel against taskmasters however stern or cruel, and who could be worked to the death without any payment of wages, and only with such supplies of the means of existence as merely kept them in life? What wages, or what profits, could there have been for European labourers when the haughty Spaniards held in subjection and treated as slaves the numerous Native population of the New World?—working them to death on the fields or in the mines, with no pay or compensation save such bare supplies of food as it suited the selfishness of their stern masters to dole out to them!

Gold and silver were the objects which fired the imaginations and inspired the heroic adventures of the Spaniards in their marvellous and romantic career in the New World. Disdaining agriculture, and neglecting the valuable produce of the singularly fertile plains and valleys of their new possessions, the Spanish conquerors directed their steps wherever they heard tales of abundant gold or silver; and it was to the attainment of these precious metals that their industrial pursuits—if such they may be called—were exclusively directed. And it was this pursuit, so eagerly and mercilessly carried on, which, by destroying the Native population, greatly lessened the value of the new possessions of Spain, by denuding them of the supply of Labour requisite for developing and utilising their singularly rich and varied resources. The Indians might have lasted for generations as tillers of the

exuberant soil, and in such numbers as to enrich the Spanish kingdom by the addition of vast tracts, whole islands or provinces, of rich cultivation, and so choice and varied in produce as to supply abundant staples for an extensive and lucrative commerce with Europe, with its numerous concomitant advantages, first to Spain, and further to the world at large. But the Indians died like flies under their un pitying masters; and so, the New World was hardly discovered ere it was deprived of the Labour which might have turned to full account its choice and abundant resources.

Gold was found at the very outset—in the island of Hispaniola, the first part of the New World which Columbus added to the dominions of Spain; but the revenue from this source was of comparatively small amount. The natives of Hispaniola, the most gentle and effeminate of the American race—widely different from the dreaded Caribs in some of the adjacent islands, who in courage and ferocity resembled the Aztecs of Mexico and the Red Indians of the present day—were quickly enslaved by the Spaniards, and were driven in herds to the mountains, to work mines of the precious metals wherever these could be found. Here, as subsequently, the ordinary rewards bestowed by the Spanish leaders upon their comrades and followers consisted of grants of land together with so many Indians, as slaves. Under the exhausting and unfamiliar toil imposed upon them, the Indian population of Hispaniola, which had numbered a million (some writers say three millions)

when Columbus first landed on the island, in fifteen years sank to only sixty thousand; and in a few years more, when a census was again taken, it was found that only fifteen thousand of the aboriginal population remained.

Although fortunate in finding gold in the islands where they first landed, it was not until the Spaniards reached the mainland of America that they came upon gold and silver in abundance. When Balboa was forcing his way into the forest-clad mountains of Darien, preliminary to the memorable expedition which for the first time revealed to European eyes the vast Pacific Ocean, one day his followers were quarrelling fiercely over the division of some gold that had been seized as booty, when a young Indian Cazique, indignant that men should draw the sword upon one another for such a cause, contemptuously tumbled the gold out of the balance, and exclaimed, "Why do you quarrel about such a trifle? If you are so passionately fond of gold as to abandon your own country, and to disturb the tranquillity of distant nations for its sake, I will conduct you to a region where the metal which you so eagerly admire and desire is so common that the meanest utensils are formed of it. At the distance of six suns," (*i.e.* six days' journey), he said, "there is a great ocean, and on its shores to the south lies that wealthy kingdom; but it is so powerful that you will need far superior forces before you can venture to attack it." In this first expedition, in which he discovered the South Sea, Balboa received five hundred

pounds of gold from a cazique of the Isthmus of Darien, in exchange for beads and other toys ; and on his return over the mountains he is said to have collected seven thousand crowns more in pearls and gold,—the gold-crown of that day being equal to half-a-guinea of our present money.

It was in this way that the Spaniards first came to hear of the Pacific Ocean and also of the wealthy country of the Incas,—that secluded kingdom amid the valleys of the Andes, so strangely yet perfectly organised, and so peacefully prosperous, that even now, although only known to us in its ruins, it forms the most striking spectacle that the New World presented and one of the most remarkable social fabrics which human civilisation has ever produced. A few years afterwards, Cortez, landing on the Peruvian coast, heard in somewhat similar fashion of the great kingdom of Montezuma ; and within less than forty years after the discovery of the New World, the daring and hardy Spaniards were lords both of Mexico and Peru,—the two regions which were then by far the richest alike in mines and in accumulated stores of the precious metals. The spoils of Peru outstripped the imagination and astonished the minds of the avaricious conquerors. The plunder of the city of Cuzco is stated by Herrera to have yielded four hundred thousand pounds in metallic treasure ; and the treasure extorted by Pizarro from the Inca Atahualpa, as ransom, is stated by Garcilasso de la Vega at the enormous sum of eight hundred thousand pounds,—Gomara, however, reckoning it

at only a hundred and forty or a hundred and fifty thousand pounds.

Peru, under the Incas, possessed a larger abundance of gold and silver than any other portion of America. The Peruvians were acquainted with the simpler forms of extracting from the earth the precious ores. In common with the Mexicans, they obtained gold by searching in the channels of rivers, and by washing the soil where it was found to be auriferous. To procure silver was a much harder task, but the Peruvians pursued this work with no inconsiderable degree of skill and invention. Silver, as already said, is always found in veins, more or less embedded in the rocks. Where these veins lay near the surface, the Peruvians made excavations beneath the veins; to such depths that the persons working in these pits could throw out the ore, broken off from the veins, or hand it up in baskets.

Neither the Peruvians nor the Mexicans possessed the skill or appliances for sinking deep shafts, for the purpose of following the silver-veins down into the heart of the rocks. They possessed copper, but apparently only in small quantity; and they showed great ingenuity in the treatment of that metal, and indeed of some other mineral substances also. Besides vessels of earthenware of different forms, they made mirrors of various dimensions out of very hard stones highly polished. They also made hatchets and other instruments, both for war and peace, out of flint, and also out of copper hardened to such a degree as to supply the place of iron. This was

accomplished by some unknown process,—just as the same metal in the skilful hands of the ancient Egyptians, and by some equally unknown process, was made equal to iron for cutting purposes. Unfortunately these copper tools, which in hardness and temper were quite equal to mining purposes, were extremely small, and seem to have been only employed in slighter works, such as those of ornamentation. But, although quite incapable of the deep-mining of the present day, and such as the Romans were more or less capable of, the Peruvians watched where silver-veins cropped out on the banks of a stream or on the sides of the mountains; and there they hollowed deep caverns, and worked the vein until it dipped beyond their reach into the earth. They had discovered the art of smelting and refining the silver ore, by burning or roasting the ore in furnaces. Also, when the ore was less tractable and more impregnated with foreign substances, the Peruvians used to employ ovens or furnaces placed upon high grounds, and so artificially constructed as to create a strong draught of air, whereby the heat of the furnace was raised to as high a temperature as was required to smelt the most intractable ores.¹

¹ “The mines had been wrought for the Incas, but the use of mercury had not been adopted until more than forty years after the Conquest. The smelting was performed in small portable furnaces or cylindrical tubes of clay, very broad, and pierced with a great number of holes. In these the Indians placed layers of silver ore, galena, and charcoal, and the current of air which entered the holes quickened the fire and gave it a great degree of intensity. These furnaces were moved from one elevation to another according to the degree of high or low wind. When it was found that the wind blew too strong and

Both in Mexico and Peru, it was in silver that the Spaniards chiefly reaped the precious spoils of the earth. But, not long after the conquest of Mexico and Peru, they acquired possession of two widely distant portions of America which were highly productive in gold. One of these (acquired in 1536) was the region called by them the "Kingdom of Granada," nearly corresponding with the north-eastern portion of South America, now called Guiana, and on the upper branches of the Orinoco river. On the uplands of this district, both gold and precious stones were found in most attractive quantity. Here, no mining operations were requisite: the gold lay distributed on the surface, in similar fashion to what has recently been found in California and Australia. All that was needful was to extract the flakes and grains of gold from the soil by washing. This work was done by Negroes,—who about that time began to be imported from Africa to carry on the hard work of the mines, which had proved so fatal to the less robust Indian tribes. Even the Negroes, it had been found, when employed in actual

consumed too much of the fuel, they were removed to a lower situation. By these means the natives obtained argentiferous masses, which were smelted again in their own cottages. This was performed by a number of persons, ten or twelve at a time, blowing a fire through copper tubes, from one to two yards in length, pierced with a small hole at the extremity towards the fire, which thus acted in the same manner as the modern blow-pipe. By such means as these, though a very large portion of the silver must have remained in the scorise without combining with the galena, yet such a quantity could be obtained as would satisfy the demands of the fiscal officers of the Incas."—*Jacob's Inquiry*, vol. ii. p. 50.

mining operations—as at Potosi,¹ and in the other silver-mines of the Andes—rapidly perished under the chill air of the mountains and from the close and vitiated atmosphere of the narrow subterranean galleries; but in this mere surface mining (if it can be so called), where only hard work, or work made hard by their greedy and pitiless Spanish taskmasters, had to be encountered, the imported Negroes fared much better than the softer Indian race.

Some of these Guiana gold-beds—or *placers* as they are now styled—yielded gold in wonderful profusion. The gold was frequently found in large *pepitas*, or grains,—which was regarded as something marvellous in those days; and these Guiana “placers” appear actually to have equalled in richness those which in this generation have been found in California and Australia. On a rising ground near Pamplona, single labourers were known to have collected in a day’s work gold amounting in value to a thousand *pesos*—the peso at that time (before the fall in the value of money) being equal in value to the pound sterling. Dr Robertson, towards the end of last century, in his ‘History of America,’ says:—“A late Governor of Santa Fé brought with him to

¹ Despite the humane but ineffectual care of the Spanish Government, a large portion of the Negroes imported into South America perished before they reached the mines in the Andes. The voyage to the river Plate, with the subsequent long land-journey over the Pampas and the Cordilleras, lessened the numbers of the captives and weakened the frames of those who arrived at the inhospitable cerro of Potosi, and when there the severity of the climate rendered most of them incapable of work.

Spain a lump of pure gold estimated to be worth seven hundred and forty pounds sterling. This, which is perhaps the largest and finest specimen [nugget] ever found in the New World, is now deposited in the royal cabinet of Madrid." It so happened, also, that this auriferous district of South America was unusually prosperous. It was well-peopled, because the Indian tribes were there exempted from the compulsory service to their Spanish masters which decimated the native population in most other parts of Spanish America. "Cultivation and industry of various kinds" prospered; and a considerable trade was carried on with Carthagena,—the produce of the mines and other commodities being conveyed down the great river of St Magdalene to that city; and, as already said, this kingdom of Granada had also a communication with the Atlantic by the Orinoco river. Nevertheless the country lying to the east of this "new kingdom of Granada" (namely, between it and the Atlantic)—in which region Raleigh's disastrous expedition was prosecuted, in search of the semi-fabulous golden city of Manoa—remained little known in the second half of last century. It is now being explored anew in search of gold, and apparently with a success which promises to justify the golden expectations of Raleigh and other adventurers of his time.

In truth, the discoveries of recent years have proved that many of the old beliefs as to the existence of gold-mines in various parts of the world, but which in the intermediate time were regarded as idle

tales—branding with folly the names of some illustrious men (like Raleigh himself) who gave credence to them—were perfectly true after all. Mankind judge of such matters only by the results. Not only by his jealous contemporaries, but by historical writers down to the present day, Raleigh's unsuccessful expedition in search of gold in Guiana has been treated at best as a foible or a folly—an act of gross credulity born of the heated imagination of that time, and to which a high intellect like Raleigh's ought to have risen superior. Little commiseration and no sympathy has been accorded to Raleigh and his daring comrades who went in search of Eldorado, only to return sick, worn, and broken-hearted, leaving many a brave English heart dead among the wilds of Guiana.

Among the gallant adventurers of the Elizabethan era there breathed a large portion of the proud stern spirit of the old Scandinavian Vikings,—those bold rovers of the sea, for ever seeking new lands to conquer and settle in; and who, glorying in perils and combat, shrank from a natural death as a mean end to existence, such as man shares in common with the brutes; their proud spirits yearning to meet death only amid the clash of spears and in the stern joy of battle. "We have fought with our swords—hurrah!" was the one consoling memory for Regner Lodbrog when suffering his cruel death in prison. And one can easily believe how bitter and dreary was the fate of Raleigh's explorers when, rainbow-like, the Eldorado still receded as they advanced, while the strong

arms became nerveless for the fray, and their strength wasted away under the fever-laden breath of the swamps and primeval forests of the Tropics :—

“ All o’erspent with toil and anguish,
Not in glorious battle slain ! ”

There was another part of the New World where the Spaniards lighted upon an abundance of gold, and in a shape as readily reaped as were the gold-beds of Guiana. The incident, too, is remarkable as showing how near were the original conquerors of the New World to the marvellous gold-discoveries in North America which have given a new flush of prosperity to ageing Europe in the middle of the nineteenth century.

Soon after the conquest of Mexico, the adventurous spirit of Cortez, fired by the passion for exploration and discovery which characterised his time, led him to set out on an expedition in search of the great ocean in the West, first descried by Balboa, and which that king of oceanic explorers, Magellan, had found his way into in the icy South by the narrow rock-bound and perilous Straits which bear his name. Making his way over the mountains, and through hostile tribes which had hardly acknowledged the sovereignty of Montezuma when the Aztec empire of Mexico was at its height, Cortez discovered the Gulf of California—which he termed the Vermilion Sea—lying between the mainland and the long promontory or peninsula of Lower California, and into whose upper or northern end flowed the great Colorado

River, which drains the arid plains of the vast central basin of North America, extending in arid wastes between the Rocky Mountains and the Sierra Nevada. Cortez first beheld the Vermilion Sea in the year 1536; but for a long period this region, separated from Mexico by the great mountain-chain, was so little known to or frequented by the Spaniards that Lower California was represented in most charts, not as a peninsula, but an island. Towards the close of the century (says Robertson), the Jesuits, "who had great merit in exploring this neglected province, and in civilising its rude inhabitants, acquired a dominion over it as complete as that which they possessed in their missions in Paraguay;" but they depreciated the country in order that their dominion might not be interfered with by the Court of Madrid. By-and-by, however—especially after the decree of expulsion against the Jesuits from the Spanish dominions,—the valuable pearl-fishery and other attractions of this region led to the establishment of a few Spanish settlements, and ere long to the discovery of the rich gold-beds above alluded to.

The new settlements, especially in the provinces of Cinaloa and Sonora, were seriously disturbed by the fierce Indian tribes of the region; and in the year 1765, the incursions of those savages compelled the Spanish settlers to implore the Viceroy of Mexico—the able and benevolent Marquis de Croix—to grant them the aid of troops to repel the fierce native tribes. The aid was granted; but the war, although conducted by an able officer, was tedious and pro-

tracted, owing to the difficulty of pursuing the defeated Indians over mountains and through gorges and defiles which were almost impassable ; but after three years of warfare, in 1771 the native tribes at length tendered their submission. This warfare was amply repaid by the discoveries to which it led. In the course of their marching in pursuit of the Indians, the Spaniards came into districts previously unknown to them, and wherein they made discoveries of gold in such abundance as was astonishing even in those times. "At Cineguilla, in the province of Sonora, the Spaniards entered a plain of fourteen leagues in extent, in which, at the depth of only sixteen inches from the surface, they found gold in grains of such a size that some of them weighed nine marks, and in such quantities that in a short time, with a few labourers, they collected a thousand marks of gold in grains,—even without taking time to wash the earth which had been dug, and which appeared to be so rich that persons of skill computed that it might yield what would be equal in value to a million pesos," or about a million pounds sterling. So great was the attraction of these gold-beds that within a few months after their discovery—that is, before the end of the year 1771—above two thousand persons were settled in that secluded district, under the government of proper magistrates, aided by the inspection of ecclesiastics ; and soon afterwards other mines, rivalling those of Cineguilla in richness, were discovered both in Sonora and Cinaloa.

There is a striking resemblance between these

early-found gold-fields and those which in our time have been discovered in the northern part of the same region. The main difference—and it is a very slight one—is, that on the plains of Cineguilla the gold-beds were covered by soil to the depth of nearly half a yard, whereas in California they usually lay on the present surface of the soil: facts which seem to indicate, either that the physical convulsions which led to the distribution of gold in the southern part of the region took place at an earlier epoch than those in Upper California, or else that the water-system of Cineguilla—the rains and streamlets—carried down a larger portion of soil from the uplands, gradually overlaying the previous gold-deposits in the plains.

Besides its abundance in silver and gold, and in a lesser degree in pearls and precious stones, the New World—especially in its central regions, first discovered and conquered by the Spaniards—was so exceedingly fertile, and its vegetable products were alike so novel and so desirable to the nations of Europe, as to supply abundantly the materials of commerce, and to open a vast domain for industrial enterprise. Columbus and the other discoverers were so impressed by the marvellous beauty and fertility of these new regions that they declared that “neither tongue nor pen could do justice to the truth,” and that “this country excels all others as far as the day surpasses the night in brightness and splendour.” Of the fruit-bearing palm-trees, Columbus said that they were “of various kinds, and the

tallest and finest I had seen." The maize, the most prolific of the cereals, grew in abundance; the cotton-plant grew wild; and the cocoa-tree yielded a novel and delicious beverage which now ranks along with tea and coffee as the chief non-alcoholic beverages of the civilised world. Strange it is, that Europe owes its favourite beverages to regions so remote, and so wide apart, as China, Arabia, and Central America! The sugar-cane, transplanted from the Old World, found a new and most congenial home in the lovely islands of the Gulf first discovered by Columbus; while the cotton-plant in the United States now supplies the raw material of the largest textile industry in the world, and is used as clothing by almost every people on the face of the globe.

Imagine, then, what might have been the effect of the discovery of this New World upon the condition not only of Europe, but of mankind at large. We justly regard it as a great benefit when some new country, like Australia or California, is added to the sphere of human enterprise, of commerce and production. But how vastly grander might have been, and in some degree was, the discovery of the great American continent—wellnigh equalling in extent the whole of the then known world, and abounding alike in the precious metals and in vegetable productions of the most useful and agreeable character,—the staples of a commerce for which all Europe at that time, whether in its shipping or in its industry, was hardly equal.

Unhappily for that time, yet not without ample

compensation to subsequent generations, the spirit of the age, as well as the rudimentary state of material civilisation in Europe, combined to delay the reaping of the manifold benefits which the discovery of the New World so suddenly placed within the possible reach of mankind. The Spanish conquerors, partly from paucity of numbers, and still more from haughty prejudice and dislike of settled industry, restricted their enterprise almost exclusively to the search for the precious metals, and ignored the far more certain and abundant source of wealth-making from the cultivation of the soil, or even utilisation of its natural products. Even the crude utilisation of the valuable logwood and mahogany in the forests of Honduras was mainly due to the interloping enterprise of English adventurers. But the most fatal of all the mistakes (not to call it by its truer and harsher name) of the Spanish conquerors was the rapid destruction of the Indian population, whereby their new territories became deprived of a supply of Labour, which in all countries, and most of all in the New World, was indispensable to industrial progress and to the wealth-making development of the resources of Nature. In their haste to be rich, the Spaniards "killed the goose that laid the golden eggs." Gathered into herds, the Natives were hurried off to the mines, to perish under the lash of their taskmasters,—leaving a void, a lack of Labour, which European immigration has never filled up within the wide American dominions of Spain.

The other chief agency by which the New World

might have been turned to most profitable account, for its masters as well as for mankind at large—namely, Commerce—was likewise neglected; or rather, in accordance with the jealous spirit and mistaken notions of the time, it was denied its natural growth, and was narrowed down to proportions wholly inadequate for the wealth-making prosperity of the Spanish dominions in the New World, or even for the material and pecuniary benefit of Spain itself. In that age, and for several centuries afterwards, it was the usual practice of European Governments to commit the trade with their colonies as a monopoly to privileged companies,—for example, as the English and Dutch Governments did with the trade of their East Indian colonies or conquered settlements. As the experience of our East India Company proved, such a course may have great advantages in extending the empire at no cost to the Home Government; also it may be excusable under circumstances where the cost and risk of opening a new trade are too great for an unassisted company. But the disadvantages of such a system are obvious. Firstly, because an important branch of trade is entirely shut against the general enterprise of the community, and thereby unduly narrowed, while the interests of the colonial population are sacrificed to those of the privileged company. The Spanish Court adopted a different system with respect to the trade with the New World. There was no monopoly conferred upon any company or person, but (mainly, or exclusively, in order to exclude foreigners) the trade with “the

Indies" was placed under strict regulation by the Crown, and was made to contribute to the public revenue. Duties were imposed both upon the goods exported to the New World and upon the American goods imported into Europe. In order to facilitate the strict supervision of this trade and the levying of the State-dues upon it, the merchant-ships had to sail as a fleet from an appointed port of Spain (at first Seville, and after 1720, Cadiz), where the cargoes were inspected before a licence for the voyage could be obtained; and each ship had to return to the same port, and make a report of its commodities to the Government officers. These mercantile fleets were protected by a convoy of war-ships, both in going and coming,—a very useful precaution, seeing that these fleets became favourite objects of capture to the numerous buccaneers, and also, when Spain was at war, to English and other adventurers who carried on their Sovereign's war on their own account.

Once in the year, this stately Merchant-Fleet—consisting of two squadrons, called respectively the Galleons and the Flota—sailed from Seville (and afterwards from Cadiz), carrying European commodities for the supply of the Spanish settlements in the New World. Under the system of State-monopoly, the fleet was allowed to trade with only three ports in America, as the emporiums of the three great divisions of the Spanish dominion in that continent. The Fleet sailed first to Carthagena, the chief seaport of the north-eastern part of South

America,—including the provinces of Santa Martha, Caraccas, and the new kingdom of Granada. From thence the fleet sailed to Porto Bello on the Isthmus of Darien, which was the entrepot for the rich commerce of Chili and Peru; thence the fleet pursued its course northward along the Yucatan coast to Vera Cruz, the seaport of "New Spain," *i.e.* Mexico; and finally all the ships and their convoy rendezvoused at Havanna, and returned in company to Spain. At each of these American ports a great Fair was held,—the various treasures and commodities of the New World being brought thither in anticipation of the arrival of the fleet. The most important of these Fairs was the one held at Porto Bello. "At the season when the galleons are expected," says Dr Robertson, "the product of all the mines of Peru and Chili, together with their other valuable commodities, is transported by sea to Panama. From thence, as soon as the appearance of the fleet from Europe is announced, they are conveyed across the Isthmus, partly on mules, and partly down the river Chagre to Porto Bello." This village, so called from the fine bay upon which it is situated, was in those days exceedingly unhealthy, owing to the pernicious combination of great heat and continual moisture acting upon a rank soil, and filling the air with putrid exhalations. Nevertheless, annually as the season came round for the arrival of the galleons, Porto Bello became filled with people,—many coming across the Isthmus from Panama, and from the more distant ports of Peru. From

being the residence of a few Negroes and Mulattoes, and of a miserable military garrison relieved every three months, Porto Bello assumed suddenly a very different appearance ; and its streets were crowded with opulent merchants from every corner of Peru and the other Spanish dominions on the Pacific. A Fair was opened ; the wealth of America was exchanged for the manufactures of Europe ; and during the prescribed term of forty days, " the richest traffic on the face of the earth was begun and finished, with that simplicity of transaction and that unbounded confidence which accompany extensive commerce." Then the numerous tents, booths, and temporary warehouses disappeared as suddenly as they arose ; merchants and population dispersed in all haste from the fever-stricken spot, and Porto Bello relapsed into its normal condition of a miserable village upon a magnificent bay. At Vera Cruz, to which the Fleet next repaired, a similar Fair was held. The treasure and commodities of " New Spain " — Mexico, and its dependent provinces — previously deposited at Puebla de los Angeles, to await the arrival of the fleet — were transported to Vera Cruz ; and the commercial operations which ensued were similar to those at Porto Bello, although inferior to them in importance and value. Thus, Carthagena, Porto Bello, and Vera Cruz were the sole entrepots and outlets for the productions and commerce of the New World, under the jealous monopoly of Spain. Thereafter, as already said, the flota and the galleons, having completed their cargoes from

the American continent, rendezvoused at Havanna, and returned with their rich freights to the ports of Spain.

The first great defect of this Trade with the New World was its narrowness, its insufficiency. About the middle of the sixteenth century, when the exclusive trade to America from Seville was in its most flourishing state, the burden of the two united squadrons of the galleons and the flota did not exceed twenty - seven thousand five hundred tons. This was quite inadequate to supply the luxuries and many of the necessities of life to the extensive settlements of Spain in the New World. Moreover these settlements, although well suited (owing to the variety of their produce) to trade with one another, were prohibited from so doing,—the object being to make each province wholly dependent upon Spain, so as to enrich the parent State with the entire profits of the trade. The folly as well as injustice of such a policy need not now be pointed out. There might, indeed, have been much to allege in favour of it had Spain been able to furnish the supplies and to carry on the trade as fully as was needed. But this was far from being the case. Moreover the strict regulations under which the trade was conducted prevented a full development of the commercial energies and capacity of Spain. The trade being confined to a single port in Spain and to only three ports in the extensive Spanish dominions in America, it naturally fell, at both ends, into the hands of a few wealthy merchants or large firms,

who, co-operating from self-interest, prevented competition,—excluding the rest of the mercantile community, and also taking care that the supply of merchandise was always kept inadequate to the demand. There are two ways of conducting such a trade profitably for those engaged in it. One of these is to keep the supply of commodities commensurate with the demand, and to compensate moderate prices by a vast expansion of trade and sales. The other is, to keep down the supply, and make large profits by exacting a famine-price for the commodities. Owing to the practical monopoly under which the American trade was then carried on, the Spanish merchants, alike in Spain and in the New World, were able to adopt the latter of these courses,—which could be pursued in comparative indolence, and, on the whole, with more certain gains. A monopolist may acquire more, and certainly will hazard less, by a confined trade which yields exorbitant profit, than by an extensive commerce, calling for more enterprise and trouble on his part, in which he receives only a moderate return of gain. In this way the sphere of commercial industry, and of production also, was checked, and the price of European commodities in the American markets was forced up to an exorbitant height.

“A hundred, two hundred, and even three hundred per cent, are profits not uncommon in the commerce of Spain with her colonies.” So wrote Robertson in the latter half of last century, although by that time the original exclusiveness of the trade

between Spain and her American colonies had become greatly abrogated. During the war with Great Britain and Holland, the English and Dutch acquired such a command of the sea as to cut off all communication between Spain and her American colonies ; so that the Spanish Government was glad to open this trade to her allies the French ; and the merchants of St Malo, to whom Louis XIV. granted the privilege of this lucrative commerce, carried it on upon much more liberal principles than those of the Spaniards, —the result being that European goods were imported into the New World in such abundance as had never previously been known. Upon the conclusion of peace, by the Treaty of Utrecht, Philip V., seeing that the American trade was becoming lost to his people, abrogated the concession to France, and once more shut the trade against foreign vessels ; and a Spanish fleet was employed to clear the South Sea of all intruders. Nevertheless, as an inducement to Queen Anne's Government to conclude peace, Philip V., besides conveying to Great Britain the *Assiento*, or contract for supplying the Spanish colonies with negroes, had granted the English the privilege of sending a ship of five hundred tons burden, laden with European commodities, to the great fair at Porto Bello. In connection with this privilege, British factories became established at Carthagena, Panama, Vera Cruz, Buenos Ayres, and other Spanish settlements, where they became perfectly acquainted with the wants of the various colonies ; while the English merchants in Jamaica were upon

the spot to take advantage of the information. The English ship, too, which traded to Porto Bello was double the stipulated size, and was accompanied by two or three smaller vessels, all full of European goods. Thus, partly by the operations of the British South Sea Company, and partly by the activity of private interlopers, the trade of Spanish America became engrossed by foreigners. "The immense commerce of the galleons, formerly the pride of Spain, and the envy of other nations (says Robertson), sank to nothing; and the squadron itself, reduced from fifteen thousand to two thousand tons, served hardly any purpose but to fetch home the royal revenue arising from the fifth on silver."

After one more effort to maintain this exclusive trade — by means of war-ships, called *Guarda Costas*, to repel all foreign traders,—the Spanish Government began to reverse its policy of monopoly, and to rely upon the mercantile energies of its own people. Upon obtaining a licence from the Council of the Indies, merchants in Seville or Cadiz were allowed to despatch ships to the New World at any season of the year, in the intervals between the annual sailings of the galleons and flota. This system of "register-ships" succeeded so well that in 1748 the galleons, after having been employed for upwards of two centuries, were finally laid aside; and the trade was carried on by single ships despatched at such seasons of the year as would meet the requirements of the American markets. Also, in 1728, Philip V. granted to a body of merchants

(called the Company of Guipuscoa, from the province in which it was established) an exclusive right to the commerce with Caraccas and Cumana, on condition of their maintaining a sufficient force of armed vessels to clear the coast of interlopers. The Company traded chiefly in cacao—chocolate having become a prized beverage in Europe; and despite the system of monopoly, this Company greatly benefited both the parent State and the colony. Further, as there were hardly any means of conveying information, whether political or mercantile, between Spain and its American colonies, Charles III. in 1764 appointed packet-ships to sail on the first day of each month from Corunna to Havanna or Porto Rico, from whence smaller vessels conveyed the letters to the various parts of Spanish America. Finally, the same monarch virtually threw open the American trade to the Spanish nation, by permitting vessels to sail from certain ports in each maritime province of Spain, at any season, and under no other condition than that of paying a duty of six per cent on the commodities sent from Spain. The effects of this unshackling of trade were most happy, both for Spain and for her American colonies; and yet the very prosperity thence arising, by strengthening these dependencies, contributed to that assertion of their independence which, owing to the accompanying turmoil and interruption of the Mines, so remarkably affected the fortunes of mankind at large in the early portion of the succeeding century.

Resuming the comparison, or rather contrast, between the circumstances and events of the Silver Age and those of the Golden Age of recent times, let us see what were the effects of the former epoch upon the New World, the region which then produced the vast supply of the precious metals. We have already described, as one of these effects, the cruel and rapid extermination of the Native tribes, and the consequent loss of the Labour indispensable for the development of the resources of the newly discovered continent,—a population which, under the wiser and humane spirit of modern times, would have been maintained in happy or at least comfortable existence, while usefully contributing to the industrial development of the country and to the wellbeing of the world at large. But the entire epoch is a striking illustration of the different effects to which the same causes give birth in different ages of the world, or stages of civilisation. Grandly bold and adventurous as was the spirit of the Spaniards in the days of Columbus, it was the wild lust of gold, the passion for sudden wealth, which mainly directed alike their policy and their conquests in the New World. Their conquests, marvellous as they were, were a chase for gold, and a ruthless career in which, while massacring the Natives, the conquerors were perpetually in bloody feud among themselves. Never before or since—and this is saying a great deal—did the *auri sacra fames* produce such an amount of atrocities and bloodshed. Not only was the last of the royal Incas, and also the heir of Montezuma,

besides numerous native chiefs, ruthlessly murdered—hanged, burnt at the stake, or otherwise put to death in the most cruel and degrading manner; not only was every Cazique or Indian Chief who took arms in defence of his people and country treated as a rebel, and the Natives treated either as slaves or enemies,—but the Spanish *Conquistadores* were equally merciless to one another. Peru, the region richest in the precious metals, and where the prizes of victory were the most dazzling, was also the chiefest in feud and bloodshed. It became an *Acel-dama*—a country steeped in Spanish blood, through incessant plots and merciless warfare. The Indians, groaning in bondage and dying under their tasks, when they beheld one after another of their conquerors—Pizarro himself, Almagro, and others—murdered or publicly and ignominiously executed, might well have thought that the curse of gold was upon their conquerors. And the historian need not hesitate to say that the greedy cruel spirit which made the Spaniards a curse to the New World which they discovered, was avenged by the miseries which it wrought upon themselves and upon their own fortunes.

Excepting the mines of gold and silver—which the Indians, wisely at least for themselves, scorned to toil at, content to use the precious metals as ornaments, when they could be easily procured—the Spaniards did little or nothing to improve either the natural production or good government of the regions which they had so wonderfully discovered

and so gallantly but ruthlessly conquered. Except in ceaselessly attracting Spanish exploration and conquest into new quarters, and thereby more rapidly opening up the New World to the knowledge of mankind, the Silver Age had its sole effects upon America, the country of its birth, in enriching a comparatively small number of Spanish adventurers, and in the gorgeous pomp of the State and the Church. The commonalty suffered alike from the artificially restricted Trade, imposed by the Mother Country, and from the despotism of greedy officials, exempt by remoteness and inaccessibleness from the controlling power of a justice-loving and by no means inhuman Government. But the Courts of the Spanish Viceroy's blazed with regal splendour. They were formed upon the model of the Spanish Court, then the most stately and ceremonious in Europe. Each of the Viceroy's, three or four in number, kept his body-guard of cavalry and foot-soldiers—also a stately organised Household, with numerous attendants and ensigns of command,—and in all points displayed a magnificence which hardly pertained even to royalty in the countries of Europe. And so despotic and unrestrained was his power that each Viceroy could amass wealth by plunder even more freely than any Prætor in a distant and wealthy province of the Roman Empire. The Church rivalled, if it did not exceed, the splendour of the Civil power. In that region of heathendom, of sparse population, and of rude civilisation, the Hierarchy was established as elaborately as in Spain,—

with a full complement of archbishops, bishops, deacons, and other dignitaries. The revenues of the Church were immense, and wholly disproportionate to the general condition of the country. A century ago, the historian Robertson remarked that "the Romish superstition appears with its utmost pomp in the New World. Churches and convents there are magnificent and richly adorned; and on high festivals the display of gold and silver and precious stones is such as exceeds the conception of a European."

Lavishly supported by public grants of land, or by the gifts and bequests of pious individuals, ecclesiastics pervaded the early American society; indeed even in recent times the clerical hat and garb were conspicuous in all the cities of Spanish America. To their honour be it said, the religious orders distinguished themselves by their efforts to prevent the oppression of the weak and unfortunate Indian population. In the rural districts, the monasteries did much to instruct and improve the condition of the Indians, even though the *Padrés* took care to turn the labour of their converts or dependants to their own worldly advantage. The Missions or settlements of the Jesuits in Paraguay remain memorable in history for the success with which the Fathers dealt with the ignorant and indolent natives,—alike instructing them in the industrial arts, and training their lazy and fitful natures to a system of orderly and organised industry. Nevertheless the ecclesiastical system was on far too grand a scale for a country which, howsoever abundant in

natural wealth, required for its development a much larger number of workers and leaders than were available. The wide establishment of convents and monasteries contributed to aggravate this natural or unavoidable deficiency. The lassitude produced by the warmth of the climate—the passion for the *dolce far niente* which so much prevails in southern climes, together with the weariness bred of satiety, and also with those yearnings of the soul after rest and heavenly communion which are found everywhere within the bosom of human civilisation—combined to impel numbers of the better classes into religious retirement. Only members of the pure Spanish race were admitted into convent or monastery. Hence, just as the *Repartimientos*, so ruthlessly administered, produced a lack of the agents of crude labour through the extermination of the Indians; so the ecclesiastical and conventual systems operated not less disastrously by still further reducing the inadequate numbers of the Spaniards, and diverting into religious meditation the intellectual power and masculine vigour which were so much wanted to guide the fortunes and develop the resources of the New World.

Eager in their chase after gold, and in their passion for exploration and conquest, the Spaniards had spread themselves over a region far too extensive for their effective power of dominion and administration. They took more in hand than they could master, and they aggravated the evils of their position by crimes and mistakes. The Native depopulation was

like the act of a man who, in his haste to advance, sets fire to a forest in an otherwise treeless region ; and who, while by this means more quickly reaching his goal, looks back over the charred and level waste only to perceive that, in his too eager haste, he has destroyed the main element which gave value to this new possession. Add to this far-reaching fault, or positive crime, first, the black-hearted feuds and conflicts among themselves, which thinned the ranks of the Spanish conquerors of the New World, and which especially swept away their leading captains ; and secondly, the excessive development of the ecclesiastical system, together with the exuberant growth of convents and monasteries in these new countries ; and it will be seen how, on the one hand, the untamed ferocity of those times, when Europe was still struggling out of the night of Barbarism,—and on the other hand, how the action of the very counter-acting influence to that ferocity, and the chief civilising agency, namely, the Papal form of Christianity—contributed, by unfortunate conjunction, to rob even Spain of the best fruits of her heroic conquests, and to defraud mankind at large, and in no small degree permanently, of the vast benefits which, under better circumstances, or in a later age, would have naturally attended the discovery of a New World.

Such—and so different from the features of the Golden Age—were the chief effects of the Silver Age upon the New World, the country of its birth,—the great continent in whose lofty longi-

tudinal mountain-chain, from Peru to Mexico, were discovered the rich and even still unexhausted silver-veins which served to infuse vigour into the infant commerce and civilisation of Europe,—providing an international currency for the vast expansion alike of foreign and domestic trade which naturally followed the discovery of the Western Hemisphere, together with that of a sea-route (unbarrable by the then universal hostility of the nations by land) to the fabulously wealthy and actually flourishing States and kingdoms of the remote East. So great and various, also, were the differences between that Age of Silver and the Golden Age of the present century,—not only in the primal and causative facts of the epoch, but still more in the effects or consequences to which those primary and operating events gave rise.

One remark more,—and probably it is one which has already suggested itself to the reader. It was impossible, even if steam-navigation had been then in vogue, that any really great Emigration could have poured from Europe,—flooding, or at least occupying the best parts of the New World, and proportionately spoiling America as a ready reserve (or, as we may style it, Nature's grand "preserve") for the overflowings of people from the Old World at a subsequent epoch when such an opening was peculiarly precious: whereby probably Europe has been saved from barbarous social convulsions, hardly less destructive to the established form of Civilisation than were the desolating inroads of the Barbarians which threw

back Europe into the Dark Ages upon the sunset of Imperial Rome.

But if, owing to the prevailing ignorance, mental torpor, and other circumstances of the general population, any wide anticipatory settlement of the New World was impossible in those times, an infinitely smaller event—an occurrence which in itself would have been a mere petty accident—was on the brink of happening; and one which would have robbed both the Old World and the New—the human race at large—of a peculiarly bright portion of their subsequent career, and would have wellnigh spoiled the then future, but now realised, prospects of mankind.

We have told how Cortez, master of Mexico, but still burning with the ardour of adventure, after forcing a way southward, in a perilous expedition through mountains, marsh, and forests, to the level plains and mahogany woodlands of Yucatan, finally turned his course westwards from Mexico over the great mountain-chain or Cordilleras, till he reached the Western Ocean, or that inlet from it (the Gulf of California) which he called from its turbid waters the Vermilion Sea. There, by-and-by, the Spaniards began to make settlements; and, as already told, in their warfare with the Natives they stumbled upon the rich alluvial gold-beds of Cinaloa,—kindred in all respects with those of Upper California. What, then, would have been the consequences to the world if the Spaniards had followed up this golden trail?—if, pushing northward in a search for other gold-beds of the kind, they had “struck gold” in the valleys

of the Sacramento and San Joaquin rivers,—anticipating the ever-memorable discovery of Johan Sutter by three hundred years? The discovery in the sixteenth century of that Sacramento gold—of those vast gold-fields lying ready to man's hand, gatherable by the poor as well as, or even more than, by the rich—would have been an utter waste of Nature's treasures; nay, it would have been positively mischievous. The Silver Age, at its height, reduced Money to below one-third of its previous value,—a change the disadvantages of which were then much less than they would be now, and were immeasurably compensated by the contemporaneous advantages, alike to individuals and to mankind at large. But what would have happened had the Gold and Silver Ages occurred simultaneously, and several hundred millions of gold had been added to the immense produce of the Silver Age? To compare great things with small, it would have been as if the orchards of the world were to produce the crops of forty summers in a single year, and were then to lie fallow, while increasing mankind became annually more and more in want of the delicious and healthy fruitage. The producers or miners would have received merely dwindled profits, instead of the full pay which, under the happier events of Actuality, made them prosperous, and raised them largely in the scale of existence; while the world at large, oppressed by a redundancy of the precious metals, would have witnessed an unwholesome social revolution, arising from an enormous fall in the value of Money. In

this way, the Californian gold would have been squandered, in the fullest sense of the word,—while the Future would in this matter have become a blank, and the human race, to my thinking, would have lost the blessing of the brightest epoch in the whole course of human history.

But Nature kept her secret. The fate of the world was dependent upon that secret, and Nature kept it resolutely. Not long after Cortez's discovery of the Gulf of California, Francis Drake, the great British Admiral of that time, actually found the Sacramento gold-beds,—found the country teeming with gold, turned up in every spadeful: and when he came home he told his story of that Eldorado on the far-off shores of the Pacific. But Providence deafened the understandings of the people; what they heard with their ears, or read with their eyes, failed to make any impression on the mind, or, at most, was quickly forgotten. And so, in mercy to mankind and to European civilisation, the Sacramento gold-beds remained unknown to the world, until their discovery inaugurated or tardily ushered in the Golden Age which has so richly blessed the third quarter of the 19th century.

Looking from window, as I close this chapter, I see the orchards in the full splendour and bountiful beauty of opening May. The tender and feminine or bride-like loveliness of the pear-trees, with their falls of white blossoms amid the tenderest of green leafage, has begun to fade—to “set” into embryo fruit; while the more gorgeous and robust blo-

soming of the apple-trees, a pure or almost un-leaf-mixed mass of thick rose-white blooms, is just coming to its prime. Simultaneously, I see the lilac-trees in full blow with their grape-like bunches of lovely flowers, while the hawthorn and laburnum are only budding, ready to succeed as a second growth of floral beauty; while one knows that, beyond these, as the year rises to its rich noon, the flower-spikes of the chestnut and the graceful lace-falls of the acacia, with its greenest and loveliest of foliage, together with the honey-scents of the lime-trees, where the nightingales are already singing in the moonlight nights, will in turn delight the eye and senses of man—a pleasure-gift from Nature. Thus looking forth upon the profusion of Earth's beauty, and marking how she puts not forth all her wealth of loveliness at once, but in a wise and beneficent economy, the sight, sinking into my mind and commingling with my current of thought, seems aptly to illustrate, in an airy and dainty fashion, the remarks which I have just penned. Would it not be a lamentable waste of Earth's beauties and of man's enjoyment, were Nature to put forth all of these rich and various blossomings and flowerings at once? With the sight before me, I ask myself, Is there not enough in each of these blossomings separately to satiate the eye of Man? Is not each of them, for its time, enough of itself?—and would not their co-blooming literally be a woful waste? There is a point beyond which pleasure becomes satiety,—a limit of enjoyment, at which the human heart and

senses, yearning and thirsting though they ever are for pleasure, become inadequate to vibrate in response to accumulated joy,—albeit during by far the greater portion of man's days his sense of joy is starved, and his deep thirst for enjoyment is but a passionate craving, a yearning that remains unsatisfied. Is it not, then, a wise and beneficent economy by which the perennial beauties of Earth are developed in successive stages, and not in a wasteful or even joy-killing simultaneousness?

Not unfitly, therefore, do I accept this simile or illustration which presents itself to me from the successive beauties and bountiful loveliness of the "rolling year." The simile well suits my purpose, to illustrate the advantage to mankind, and the beneficent economy of Providence, in almost miraculously holding back the discovery of the peerless Californian gold-beds at a time when the world was already surfeited (if men can ever be surfeited with such food!) by a supply of the precious metals. And thus, the Silver Age came by itself; while the still grander Golden Age was reserved for a later time, when, alike from increasing population and from other imperious wants, the nations more greatly needed those long-hidden treasures of Earth, and when a matured civilisation enabled mankind to turn this second discovery of natural treasure to most rapid and effective use.

CHAPTER IX.

EFFECTS OF THE SILVER AGE UPON EUROPE.

THE middle of the Fifteenth century after Christ was the darkest point in the true and abiding fortunes of Europe and its peoples. Europe was then on the eve of becoming politically, and largely also in population — as it is geographically — a mere western projection or peninsula of Asia, and in all respects dependent upon that older and colossal continent. For wellnigh eight centuries the Arabians from southern Asia had planted themselves, in permanent settlement, as lords of Spain; nay, even carrying their chivalrous hosts over the Pyrenean mountains into the sunny plains of the Isère and Garonne, and only balked in their subjugation of France up to the shores of the British Channel by the military genius of Charles Martel on the battle-field of Tours. It is strange to think that but for that redoubtable blow dealt by the “Hammer” of France, our ancestors would have beheld the Arabian standards upon the heights of Calais and Boulogne, and the daring Moorish rovers might

have fluttered our shipping in the Cinque Ports, or carried the standards of the Crescent to within sight of London Bridge.

In the north of Europe, Asia was equally invading and victorious. For two centuries (prior to 1450) the Mongols, rudest of Asiatic races, had held dominion over Russia. The "Golden Horde" was established in royal power and splendour upon the banks of the Volga; and this Mongol empire in Europe extended from the Baltic and Silesia into Hungary, where a kindred and smaller but physically and intellectually superior Asiatic people had for long not merely ruled but peopled the wide and marshy plains of the Theiss, — with their capital of Buda-Pesth on the stately Danube river. Nay more, the Mongols sporadically pushed their power southward even to the head of the Adriatic. Lastly, the Ottoman Turks crossing the Hellespont (1352) captured Adrianople, conquered modern Turkey, and extended their supremacy up the valley of the Danube to the gates of Vienna. The Morea also was speedily conquered from the Venitians; and thus both the south-eastern and south-western peninsulas of Europe owned the sway of Mahomedan Asia; while Italy herself, although bulwarked by the Papal See, which was then the centre and sacred citadel of European power, was at times a prey to Mahomedan attack, and for long was kept in terror by the sound of the war-drum and cymbals of the Moorish or Turkish hosts. Also, the southern shores of the Mediterranean Sea were entirely held

by the Asiatic conquerors, who found a new field of enterprise upon its waters. Cyprus, Rhodes, Candia, and even the western Isles of the Mediterranean, yielded to the prowess of the Turks,—who, although a purely inland race, proved their gallantry almost as conspicuously by sea as by land; and while Sicily and southern Italy became in part subject to their sea-borne power, the Turkish galleys were the terror of the Mediterranean shores from the mouths of the Nile to the Pillars of Hercules.

The supremacy of Asia over Europe seemed decided, and one more generation of warfare promised to bring Arab, Turk, and Mongol into contact, as complete masters of the continent, joining hands over a prostrate and Asianised Europe. Happily, the feud between Turk and Mongol in Asia—the strife for mastership between Bajazet and Tamerlane—checked the victorious advance of the Osmanlis up the valley of the Danube into the heart of Europe at the very time when that advance was proving most successful; and both then as for more than a century afterwards, it was the Polish lances which alone barred the western half of our continent against both Turk and Mongol. “Equal among Equals” was the proud motto of each Polish noble; and neither in arms nor in mental cultivation was there then a match for that nobility in Europe. They burnt Moscow when it was held by the Mongols; and, undertaking a feat which had proved fatal to the flower of French knighthood two centuries previous, the Polish chivalry under John

Sobieski (in 1683) swept the hitherto invincible Ottoman army from the plains of Vienna, and rescued that bulwark of central Europe when upon the very eve of compulsory surrender. It makes one's cheek tingle with shame to think how thanklessly Europe since then has treated the gallant people who were her champions and deliverers in the darkest hour of her peril; how the very States — Russia, Austria, Prussia — which were then in Asiatic subjugation or in direst danger thereof, subsequently plotted and forcibly effected the destruction of Polish freedom and nationality; effacing Poland from the map of the continent which her chivalry had rescued and preserved. Nor let it be forgotten that Poland, in the hour of her destruction, was as much the Bulwark of Europe against Tartarised and semi-Asiatic Russia as she had been in the previous centuries against the purely Asiatic invasion of that earlier time. Russia, too, at the present day, is substantially the leader and vanguard of Asia against Europe in the stern and still unfinished Duel between these two continents. And, as seems to me, the restoration of an independent Poland is the test of the rival Powers, and crucial point in the conflict. The restoration of Poland would raise a barrier to the advance of Russia, with her Asian forces and semi-Asian civilisation, over Western Europe. And if Europe be not strong enough to upraise that barrier in the teeth of Russia, this will be a sign and proof that Asia will triumph in the long duel, and that Asian influence will succeed the now

ageing Aryan civilisation of our continent. What Xerxes failed to do in the splendid infancy of Europe, may yet be achieved in the end;—and, if so, it will be because the purely European peoples are now growing old, while a vast portion of the Asian population is still nascent in civilisation, inspired by religious fervour, and full of the rude vigour of youth.

In that night of European life and independence which preceded the birth of Modern Europe, Spain was the country which witnessed the first revival of Aryan power, and the first ebbing-back of the Asiatic invasion. In the middle of the fifteenth century (1453), in the childhood of Columbus, Constantinople—the last grand relic of Roman empire and civilisation, the admired wonder of a continent which had relapsed into barbarism, and the all but impregnable Bulwark of Europe against Asia, rising above the swarms of Barbarism like an island full of treasures of art and of civilised society—had at length fallen before the irresistible advance of the Turks. Twenty-six years afterwards (in 1479), there happily occurred the Union of the Crowns of Aragon and Castile; and the sagacious and resolute King Ferdinand, enthusiastically supported by his noble-hearted and devotedly religious Queen Isabella, directed the now united forces of Christian Spain against the Moorish dominion which occupied and had rendered flourishing the southern region of the Peninsula. In 1491 the Moorish capital, Granada, was captured after a long beleaguerment; and in

the following year Columbus sailed from Palos to the discovery of a New World.

Portugal, too, had been winning victories over the Moors,—even following them with some success into Northern Africa. An elation of spirit ensued both among the Spaniards and the Portuguese. Proud of their triumphs over the Infidel, either of these Powers, under the influence of the Supreme Pontiff of Christendom, would then have held it to be treason to Christianity to go to war with one another. And to both of them, especially to Portugal, the ocean was the only field open to their enterprise and enthusiasm. Prince Henry of Portugal—afterwards fitly designated “the Navigator”—in his chosen abode at Sagres, upon the rocky headland of Cape St Vincent, daily looking forth musingly upon the unknown and seemingly illimitable waters of the Atlantic Ocean, ceaselessly planned maritime explorations which ere long led the bold mariners of Portugal southward along the western coast of Africa, till they came within sight of the “Cape of Storms,”—which Prince John with a fine intuition re-named the “Cape of Good Hope”—a half-way house on the long-desired route to the Indies; while the Pope, in return, magnified the power of Portugal by assigning to her dominion the whole countries eastward of the Cape (still unknown, indeed, but confidently deemed to be on the eve of discovery) which lay within the course of Portuguese adventure. Then Columbus, immortal in fame, appeared upon the scene—a poor but noble-

looking Genoese mariner—with his bold plans and sagacious geographical inferences and intuitions; and at length (in 1791) he succeeded in laying his carefully considered theories and projects of vast discovery before Ferdinand and Isabella at the war-built town of Santa Fé, where the royal consorts then held their court before the walls of fresh-captured Granada. He offered to show a new and better way than that monopolised by Portugal to the Indies, with their fabled wealth, and to Cathay with its Great Khan and wonderful people, which Messer Marco Polo had just described in his marvellous Travels to the Far East. The new regions, too, would be won for Christ,—and Europe was then palpitating with the Christian Faith, after the long fight with the Infidels of Asia. This for the devout and noble-hearted Isabella; while a new route to the Indies, outwitting and outvying the Portuguese, together with new dominions abounding in gold and silver for the Spanish Crown, excited the ambition of the worldly-wise but jealous and penurious Ferdinand.

So Columbus sailed, and America was discovered, in 1492; while in a year or two thereafter—the exploratory ambition of the Portuguese being stimulated afresh and in rivalry—Vasco de Gama in 1497 doubled the Cape of Good Hope, accomplished his sea-route to India, and in the following year returned to Lisbon with the first-fruits of his grand and ever-memorable discovery. Next, Sebastian Cabot, for England, lands in North America; and in the fol-

lowing year, Cabral of Portugal, on an intended voyage by the Cape to India, purposely keeping at a distance from the African coast for quicker sailing, was caught in heavy gales and driven westwards across the Atlantic, unexpectedly discovering Brazil. Every year or two brought some startling and valuable discovery. In 1512, Balboa surmounts the Isthmus of Darien, and discovers the Pacific Ocean,—formally taking solemn possession of the greatest ocean of the world, with all its possible isles, as the sole property of the Spanish Crown. In 1519 Cortez discovers, and, in defiance of the grand empire of Montezuma, proceeds to conquer Mexico. In 1522—Columbus and others having found that there was no sea-passage though the Isthmus of Darien, as a short cut to Eastern Asia—Magellan, exploring southwards with similar object, reached and rounded Cape Horn, as De Gama had rounded the African continent; and one of his ships, returning by India and the Cape of Good Hope to Europe, for the first time circumnavigated the world,—putting to rest for ever the long-lingering geographical notions of the early times. In 1527 Pizarro discovers Peru, and proceeds to conquer the country, destroying the quaintest civilisation and perhaps the happiest of ancient kingdoms,—sending home, too, the first large mass of American gold. Finally, in the latter half of the century, the English, under Raleigh and other leaders, explored the American coast from Labrador to Florida, planting settlements in Virginia and other parts of North America,—the small

but memorable foundations from which has arisen the still-growing Anglo-Saxon dominion of the northern half of the New World. In the closing year of the century (1600), the English began to settle in the West Indian Islands in defiance of Spain; while in the same year, the English East India Company was formed, and twenty years afterwards made its first settlements in India at Madras. And so the opening of the seventeenth century witnessed the bold invasion by English commerce and naval power of the new-found regions both of the Western and Eastern worlds: in the one case, defying the Pope-sanctioned rights of Spain, and in the other the similar solemn rights or claims conferred upon Portugal. By-and-by the Dutch, and lastly the French, made enterprising settlements in India and adjoining regions. And thus, while the New World of America became gradually opened at all points to the commerce and colonies of Europe, a hardly less memorable epoch occurred by a full reopening of the Trade with the East, which in all ages has excited human enterprise, and which to this day, as ever, plays an important part in the affairs of mankind.

It was the passion for gold and silver which gave the prime and dominating impulse to this remarkable career of geographical discovery, — the most rapid and in all respects the most marvellous unveiling of the face of Earth ever accomplished by or even possible to mankind. In a mere half of the brief span allotted to human life, and therefore

clearly within the possible knowledge and intelligent observation of a single generation, a New World had been discovered and explored along its entire seaboard, from the mouth of the St Lawrence to Cape Horn, and thence northward along the Pacific Ocean to California; while colonies of the European race—Spanish, British, and Portuguese—had been planted as conquerors in such of its interior regions as appeared attractive, or abounding in the eagerly desired precious metals. Simultaneously the African continent had been similarly explored, as regards its seaboard, together with India and some of the islands of the Eastern seas. And ere forty years had elapsed from the first landing of Columbus in the New World, Magellan's expedition had circumnavigated the world; and in all its broad features and contour, the face and configuration of our planet Earth were suddenly fully unveiled to the knowledge, and also enterprise, of its human inhabitants.

Despite sundry erroneous preliminary conceptions, the motive or inspiring impulse of this remarkable career of exploration was justified, and its object was realised to an extent immeasurably exceeding the most sanguine hopes or the most cupidinous dreams of avarice. True, the hopes were realised in a strangely different manner from what had been conceived. India and China, although well capable of furnishing a profitable trade, could not at that time (after the dispersion of the ancient gold-stores of India by the ruthless Mahomedan invaders) have

supplied any notably large imports of the precious metals for Europe. The new Treasure, which did so much to revive Europe and expand the general trade and industry, came from an unknown and all but undreamt-of continent which Columbus stumbled upon in his intelligent voyaging westwards to Eastern Asia. Also, instead of gold, it was chiefly Silver—from the countless veins in the American Cordillera—which poured in almost immeasurable mass into the countries of Europe. Thus, as a consequence of the simultaneous triumphs of geographical discovery in these opposite directions and courses of naval exploration, the New Commerce which sprang up was correspondingly twofold or double-faced in its character,—the trade between Europe and the vast undeveloped territories of the previously unknown American continent being accompanied by a revival of trade, upon a scale of previously unequalled magnitude, with the ancient kingdoms of Eastern Asia. The discovery of a New World in the West was accompanied or slightly preceded by a re-discovery of vast civilised and wealthy countries in the East, which had for long faded out of Western sight or even knowledge, yet whose attractions had firmly survived in human memory,—nay, had even become magnified and glorified by the romance or halo of eager human Fancy, which had settled upon those regions in proportion as the daylight of Knowledge had died out. Just so, barren and inaccessible distant mountains, in the clear Southern climes, seen with the splendours of sunrise or sunset upon their

bare peaks, often appear beautiful, and a land of promise, when the uneducated sight of the beholder is combined with the ever-eager and idealising curiosity and restless desire of the human heart.

Never before was such an opening for commerce, industry, and enthusiastic enterprise presented to mankind; nor is it conceivable that any equal opportunity should occur even in the future of the human race, unless mankind are to become capable of that over-leaping of our planetary limits which is implied in the phrase, "making a railway to the moon." Yet this superiority of event and epoch lay (as already said) in the spectacle, rather than in an actual possibility of realising the vast and happy opportunities then presented to mankind. The means of utilising those splendid opportunities were to a great extent wanting. Even the leading nations of the world in the sixteenth century were in the infancy of material civilisation, and devoid of those mechanical appliances by means of which the present generation has produced an equal or superior epoch out of discoveries which, howsoever valuable in themselves, cannot for a moment compare with the splendid results of geographical exploration, combined with discovery of stores of the precious metals, which the world owed three centuries ago solely to the adventurous spirit of the Iberian peninsula, and especially to the daring and romantic conquests of the Spaniards, then flushed as with new life and animated by the loftiest aspirations.

These simultaneous but widely diverse discoveries

—namely, of vast gold and silver mines, together with a new continent in the West and long-lost or previously inaccessible countries in the East—owed their chief value and their vast benefit to mankind to the fact of their occurring together, or in immediate sequence. Just as the new supply of the precious metals was indispensable for carrying on the new inter-continental commerce, and the expansion of domestic industry to which this new trade gave rise; so did this New Commerce, and especially the Trade with the East, prove the invaluable means of furnishing highly profitable employment for the mass of gold and silver then thrown upon the world, and of speedily arresting the Fall in the value of Money, —a Fall which, of itself, was a waste of the produce of human labour at the Mines, and also a sign that the world was not benefiting as fully as might be from the marvellous supply of the precious metals which had come to mankind as a windfall, and of a kind more rare and wellnigh as strange in its occurrence as even the fabled reappearance of the Phoenix in Egypt after its retreat for six hundred years in the solitudes of Arabia.

Spain; the discoverer and conqueror of the New World, was the part of Europe which benefited first and most directly from the new Trade and the new Treasure. Her merchants became wealthy from their monopoly of the American trade; while her nobles and adventurers of all ranks, after a spoil-gathering career in the New World, frequently returned to the mother-land to spend their amassed wealth and declining years. The revenue of the kingdom was

swelled by the imposts upon the American trade and colonies, at a time when no other country of Europe, except Portugal, possessed any similar source of revenue. Also the royalty of one-fifth upon the produce of the American mines, as well as upon the gold and silver acquired in tribute or as spoils of conquest, supplied the King with a private income or personal revenue amounting to about a million sterling, which rendered the Spanish monarchs the most powerful potentates in Europe. Thus powerful, alike from private fortunes and from a prosperous people and revenue, King Ferdinand and his immediate successors were able to create a strong Executive and well-organised administration within their dominion,—concentrating the national power in the hands of able monarchs assisted by sagacious Ministers of State, like Ximenes. Under such favourable conditions, the liberation of Spain from the Moors was ere long followed by the expulsion of French dominion from Navarre, whereby Spanish rule became co-extensive with the natural boundaries of the country,—from the Pyrenees to the sea.

Further, as the possession of power naturally begets the employment of it, the Spanish monarchs began to extend their dominion by force of arms into adjoining countries,—especially into the still unsettled provinces of the Italian peninsula, which was then a coveted object of ambition both to France and Spain, and by-and-by also to the Emperors of Germany. Spain, alike on account of its new silver-mines and its military power, became the leading State of Europe ; and it was out of respect to the resources of

his hereditary dominions, as well as to his high personal qualifications, that Charles V. of Spain was raised to the Imperial throne as Emperor of Germany, as a fitting opponent to the Turkish Sultans, who were then still penetrating westward up the valley of the Danube, menacing and encroaching upon the heart of Europe. The metallic treasure of the New World, converted into coin, played an important part in the wars as in the commerce of Medieval Europe,—thereby hastening a settlement of the Continent on a basis more or less permanent, because tolerably accordant with the real power and circumstances of the various States and peoples at that time. It was American silver which not only planted the Spanish dominion in Italy, and routed Francis I. on the field of Pavia, but which helped to repel the Ottoman invaders of Hungary, and fitted out the galleys which the chivalrous young prince, Don John of Austria, led to victory in the sea-fight at Lepanto,—in locality as well as in character, a second battle of Actium, where the naval power of the East was again routed and destroyed by the forces of Western Europe. American bullion, also, largely aided the crafty Philip II. in the intrigues by which he sought so persistently to weaken his neighbours: it supplied the sinews of war to his great general, the Duke of Alva; and finally helped to produce the grandest enterprise of war which Europe had beheld, the “Invincible Armada,”—whose battles and destruction in the British seas marked the culmination and close of the military supremacy of Spain, which had

followed, and in part been due to the discoveries of Columbus. The gold and silver which had come in the galleons from Lima and Acapulco were picked up in coins upon the shingly beach of the English Channel, or strewn the unseen depths of the Atlantic around Cape Wrath and among the rocky islets of the storm-swept Hebrides.

Thus, it was in the campaigns of war, even more than in the international movements of industry, that the gold and silver of the New World became diffused from Spain throughout the continent of Europe. Strange as it may appear nowadays, the Government of Spain resisted that diffusion to the utmost. It wished and strove to keep to itself, within the boundaries of Spain, the flood of the precious metals annually in-pouring from America. In those days, and down to modern times, it was the usual policy for Governments to restrict, or actually forbid, any export of the precious metals. And there were reasons for such a policy which the authorities on such subjects at the present day have failed to recognise. Without money, it is impossible for either commerce or production to flourish, or even for national life to develop itself freely. It is only in the form of Money that taxation can be conveniently levied, or that the national revenue can be applied readily and effectively to the varying requirements of the State. It is only in the form of Money that capital, or accumulated wealth, can exert its great powers in propelling industry and production; and it is only by means of money—a circulating medium

interchangeable alike with goods and labour—that the “division of labour” and concentration of industrial skill upon particular kinds of work, can be established, in the system which the experience of all ages has found to be the best, or indeed the only one possible for attaining perfection in the arts of life. In fact, it is possible to imagine a country full of wealth or property in all the ordinary forms, yet which, from want of Money, is as defective in efficient power as a giant who has lost his hands. The strength is there, but not the means of using it. And strength which cannot be applied is no better than non-existent.

In the Middle Ages, therefore, when there was a scarcity of the precious metals—then the only form of Money—there was a very intelligible reason why Governments should strive to obtain and to keep a supply of money for their people and for themselves,—money being the commodity which they most required. Gold and silver were needed alike to store wealth (which was then increasing in Europe) and also to circulate it. Unless property could be stored or kept in this mobile form, it was shorn of more than half its advantages alike to its individual owners and to the community. We repeat, that the restrictions on the export of gold and silver in mediæval times were not the gross absurdity and unmixed evil which modern writers agree to call it. Gold and silver were then commodities which it was desirable to keep at home, in order to provide alike the “wheels of Trade” and the “sinews of war;”—a process which, in truth, we maintain at the present

day, merely in another form (*viz.*, through the operation of the Bank-rate), under circumstances which render it far less excusable, and to a degree which is disastrous to the industrial interests of our country.

But, except as an unreflecting deference to a generally existing opinion and want, there was no reason or excuse for this restrictive policy of Spain with respect to the precious metals. At the time of which we write, the flood of gold and silver from America had amply supplied all the monetary wants of Spain. The reservoir was full, and the flood was beginning to run over, in waste. In other words, the existing requirements for money in Spain having been satisfied, the continued inflow of the precious metals tended vastly to reduce the value of the previously acquired stock, and of each annual influx of specie thereafter. Under such circumstances, the economically wise course for Spain was to have permitted or encouraged the diffusion of the precious metals. Instead of being, as they were in most other countries at that time, the kind of property which it was most needful to keep, gold and silver in Spain became the commodities of which there was a plethora, and which it was most desirable to exchange for the produce of other countries, in which the precious metals were still comparatively scarce, and consequently bore a higher value than they did in Spain.

But gradually the diffusion took place; and it occurred, we repeat, as much in the campaigns of war as in commercial enterprise and exchange. But first let me briefly narrate how Spain in her domestic

condition fared under this remarkable influx of the precious metals, and under the not less notable attendant circumstances. The State, as we have seen, flourished, and became for two generations—under Charles V. and Philip II.—the leading or most powerful State in Europe. But the conquest of America and the acquisition of the metallic treasures of that continent did not prove an unmixed good to Spain and her people. We have seen as a marvel, in recent years, the sudden acquisition by one nation or Government, by the despoiling of another, of an amount of moneyed wealth much larger than Spain acquired from America during a whole century after its discovery by Columbus: and yet the effects upon Germany of the enormous War-Indemnity wrung from France in 1870, were so disappointing that, in ten years thereafter, the benefits which Germany did derive from that gain were forgotten, or so disparaged in consequence of the concomitant evils, that the common opinion is that this influx of suddenly acquired wealth was an almost unmitigated calamity for the Teutonic Fatherland.

The most obvious drawback, and the one commonly referred to, upon the enrichment of Spain from the conquest and mines of America, was the drain, by emigration, of her natural leaders alike in politics and industry—of the most gallant and enterprising members or classes of her population—men by whose influence she might have prospered most in her domestic career. But a not less, or perhaps greater, evil was that which overtakes every com-

munity which, dazzled by great discoveries of gold and silver, engage or closely participate in the hunt for the precious metals,—namely, a taste for luxurious living and wasteful expenditure, combined with a diversion of men's minds from the pursuits of ordinary industry, under the passion for becoming suddenly rich by a lucky venture. What happened in the early gold-time of California and Australia had previously happened, in much milder phase, but more diffusedly, in Spain during the sixteenth century. It is a remarkable truth that the domestic industry of Spain, both in manufactures and in cultivation, became stagnant and in some respects retrograded, while the discovery of the New World created for Spain a grand and lucrative commerce, which was the envy of all other countries. We have seen how greatly the American supply of the precious metals contributed to make Spain great and powerful in her Government and external relations; and at first sight it appears strange that an equal prosperity did not extend over her domestic industry. Of course her shipping increased, and progress was made in some branches of trade; but with such an augmented demand for her produce—in fact, with the wants of a new world to supply—it appears well-nigh incredible that Spanish trade and industrial production should have progressed so little, and in some branches actually declined.

This state of matters, however, finds its explanation in general history. The American treasure and trade acted normally as a stimulus to the industrial

condition of Spain ; but two events, of kindred character, and the result of State policy, went far to prevent Spain from making use of her golden opportunity. These events were the expulsion, first, of the Moors, and then of the Jews. Although the leading class of the Moorish population had withdrawn into Africa after the fall of Granada, the mass of the people remained in their Andalusian homes, tilling the soil or plying the loom or the forge. Also, partly owing to the tolerant rule of the Moors, the Hebrew race had settled in Spain more numerous than elsewhere in Europe ; and, as usual, this remarkable people held a prominent position in the trade and commerce of the Peninsula. Possibly trade-jealousy, and the envy of Jewish success in money-making—evil sentiments or passions which have so often appeared in history, and which (with shame be it said) even at the present moment still exist in some countries of Europe, giving rise to the *Juden-hetze* of Germany and the atrocious mob-persecutions in Russia,—possibly this trade-jealousy contributed to the passing of the royal decree for the expulsion of the Jews from Spain. But, in the main, the motive for this decree of banishment was the excessive, and indeed cruel and rabid, zeal for Christianity which then possessed both the Spanish sovereigns and the Spanish people. The Holy Inquisition waged deadly, although often occult, war against “unbelievers” of all kinds. And the pitiless Roman blood in the people soon learnt to rejoice gleefully at the *auto-da-fés* which blazed in the market-place,

exhibiting horrid human suffering to a people who, since deprived of such religious executions, have betaken themselves to the bull-ring with the same zest as the Romans frequented the arena for the death-combats of gladiators. Father-confessors, too, in the palace whispered "Thorough!" to their royal disciples, with a meaning from which our gallant Strafford would have shrunk with disgust.

Nevertheless the expulsion of the Moors and of the Jews from Christian Spain was not merely an act of pitiless bigotry. In some respects it was an act of long-sighted policy. With an Arabian population in the southern provinces of the Peninsula, and Jewish families spread everywhere throughout the country—whether as wealthy merchants in the commercial cities, or as tavern-keepers in the rural districts,—it would have been impossible to keep either the religion or the blood of the Spaniards free from the "contaminating" influence of these foreign and non-Christian peoples. The Christian creed would have lost the Aryan character and complexion which it has acquired in Europe, and Asiatic customs would have altered or become intermingled with European civilisation in the dominions of the Catholic Majesty of Spain. Moreover, there was a reason for expelling the Moors which, although its enforcement would be too harsh and unjust for adoption in modern times, is quite in accordance with the principle of Nationality which at present so largely inspires mankind and guides the policy of European States. There could be no "Spain for the Spaniards"

so long as the southern provinces of the Peninsula were mainly occupied by a foreign and even Asiatic or Berber people. The expulsion of the Moors left Spain to the Spaniards—to the partially Vandalised Iberian race,—whose hidalgos long showed in their veins the blue Gothic or Vandal blood, in contrast with the dark Iberian blood of the common people. To this expurgation of foreign elements, the Spanish nation has been greatly indebted for its homogeneity or racial unity, and for a subsequent career of power which, albeit not remarkable in recent times, would probably have been impossible had the population contained elements so diverse as Moors and Spaniards, champions of Islam and disciples of Christ.

But, whether or not the ultimate consequences of the expulsion of the Moors have been beneficial to Spain, that despotic act, together with the similar royal decree against the Jews, inflicted a fatal blow to the trade and industry of Spain in the sixteenth century. The Jewish families were the most skilful in commerce; the Moors were the cleverest manufacturers and the best cultivators of the soil. The latter race had introduced and alone carried on the beautiful textile workmanship of the East,—erecting in Andalusia the looms of Cairo and Damascus; and by them, also, had been introduced the cultivation of the sugar-cane, and the employment of irrigation to develop and steadily maintain the fertility of the soil. It was in the old homes of the Moors, on the banks of the Rio Verde and the Guadalquivir, that the olive,

the vine, and the sugar-cane became first successfully cultivated in the Iberian peninsula. And all of these industries necessarily suffered from the expulsion of the Moorish population and the Hebrew settlers.

It was this denudation of the country, by the expulsion of the flower of its industrial and commercial classes, which seriously disabled Spain from profiting by the golden opportunity, opened to her by Columbus, for a grand and permanent national prosperity. The untold wealth of the New World was in the hands of the Spanish conquerors and settlers; while for the supply of their wants these settlers were entirely dependent upon their mother country. Under the enervating influence of a hot climate, the inactivity of the Spaniards seemed to increase in the New World. Many of them were gentlemen, unaccustomed to the fatigue of bodily labour, but sanguine with splendid hopes, and believing with Columbus that they had discovered either the Cipango of Marco Polo or the Ophir of Solomon. Disdaining industrial pursuits, and neglecting the cultivation of the exuberant soil and its valuable products, they settled in the uplands, where the Mines were found, and carried on a luxurious and usually a dissolute life, imposing slavery upon the Natives. The commercial jealousy of the mother country fostered this indolence, and fatally obstructed the industrial growth and prosperity of its new colonies. Several species of manufacture, and even the cultivation of the vine and olive, were prohibited under severe penalties. And so the Spanish settlers

and rulers became dependent for everything upon importations from Spain. Clothes, furniture, instruments of labour, luxuries, and even a considerable part of their provisions, were brought from the Old World. In this way the wealthy Spanish settlers were as dependent upon the shipping and produce of the mother country as, three centuries afterwards, were the poor and hardy gold-diggers of California and Australia. Spain, therefore, ought to have reaped still greater prosperity, in the form of commercial advantages, from the first settlements in America and the opening of its rich mines than fell to the lot of England, and in lesser degree of the other trading countries, from supplying the wants of the new gold-regions of the present age. And that Spain did benefit vastly from her new colonies is manifest alike from the extraordinary amount of the precious metals which these colonies yielded to her, and also from the statement of the historian, Robertson, that "during a great part of the sixteenth century, Spain, possessing an extensive commerce and flourishing manufactures, could supply with ease the growing demands of her colonies from her own stores,"—all of which was sent out by Spanish merchants, and "all conveyed in Spanish bottoms."

But this state of matters ere long underwent a change,—and one which it is important to here observe, owing to its influence on the diffusion of the American treasure throughout Europe. Nothing can be more certain than that Spain soon proved unable to supply the annual wants of her American colonies;

nor can it be doubted that the contemporaneous complaints as to the stagnation and even retrogression of Spanish productive industry were to some extent well-founded. One instance of this decline attracted much attention at the time. At the close of the fifteenth century, the cultivation and manufacture of sugar in Spain were adequate to fully supply the wants of the Peninsula, if not also to be exported to other countries of Europe. But before the sixteenth century was far advanced, the domestic production of sugar had become quite inadequate for the supply of that country. In this case, however, the change was probably not so much owing to industrial decline in Spain (the cause to which it was contemporaneously attributed) as to the competition of foreign and, as regards sugar-cultivation, more favoured countries,—an influence which, as regards Agriculture at large, is now beginning to play as potent a part in modern Europe as it did in Italy under the later Cæsars. The sugar-cane, brought from the Canary Islands, had been early planted by the Spanish conquerors in Hispaniola and other islands of the American Gulf; and *ingenios* or sugar-factories had been erected, and worked by the labour of the docile Indians. The fertility of the soil and fineness of the climate, combined with the wellnigh costless labour of the enslaved natives, gave to this production of sugar in the West India islands advantages with which the sugar-producers of Spain could not long contend: and hence we may reasonably attribute the decline of the sugar-trade in Spain, not (as has

hitherto been thought) to any industrial decay, but simply to inability to contend against the competition of the cheaply grown and manufactured saccharine produce of the New World.

Nevertheless, it cannot be doubted that a decline of industrial production did occur in Spain, and from causes of a purely domestic kind. The chief of these, obviously, was the expulsion of the Moors and the Jews,—producing not only a diminution of the population, but a loss of the cleverest and most industrious sections of the community. Secondly, there was the jealous and commercially fatal policy of the Government, whereby the trade with America was so cramped by restrictions that it was rendered virtually non-existent as regards the nation at large. For a long period, the entire trade with the American colonies was confined to a single seaport, for the sake of preventing any evasion of the royal imposts: the natural result being, first, that the trade was stunted in its growth, never acquiring the magnitude natural to it; and, secondly, that the trade settled in a few hands, and became cut off, as by a wall of partition, from the nation at large. Thus, almost inconceivably large (at least for those times) as the trade with the New World might naturally have become—stimulating the industrial energies and enterprise of the whole Spanish nation, and calling into play the undeveloped resources of its various provinces, by the vast and then unparalleled demand for their productions,—the royal restrictions proved fatal to this grand opportunity, and realised the proverbial folly

of "killing the goose that lays the golden eggs." The trade with the New World, but for the mingled greed and folly of State policy, would have risen like a golden sun upon Spain, quickening every part of it into vigorous life and rich production. The demand for commodities of all kinds would have come home to every man's door,—holding out gold and silver to him, dazzling both eyes and mind with the sight of glittering coin, and saying, "Work, and these will be yours." This demand would really have brought the Treasures of the far-off New World to the door of every cottage in Spain, turning its inmates into eager labourers in the fields or factories. But the fetters upon the American Trade kept it down, making a dwarf of what should have been a giant; while the Trade-demand, dammed back into a few channels, was unfelt by the masses of the nation,—so that it may be likened to a fertilising stream in the midst of an arid waste, which man's folly jealously embanks, instead of leading it in irrigating channels to evoke the latent productiveness of the soil. The royal privy purse was annually filled; the Revenue grew large from the State-issued licences to engage in the trade, and from the imposts both upon exports and imports; the shipping, too, prospered, and the privileged mercantile firms reaped enormous profits, often cent per cent upon their wares. This, doubtless, was a great and rare prosperity, accompanied by a previously unheard-of influx of the precious metals: and, in less than a generation, the Kings of new-born Spain became the

mightiest sovereigns in Christian Europe. But a grand and golden opportunity was greatly wasted; and although this rare and phoenix-like epoch infused manhood into infant Europe, it was robbed of half its natural benefits, most especially in Spain, by the folly or ignorance of the times, commercial jealousy, and the greed of Courts.

Spain was then the Golden Gate through which alone the trade and treasure of the New World could reach Europe; and she narrowed that channel in order that all the passing wealth might be securely caught in the royal net of licences and imposts. Moreover, she enacted the proverb of the "dog in the manger" (which would neither eat the food in the manger nor allow any other to do so) at the expense alike of her colonies and of Europe at large. Although unable of herself to adequately supply the wants of her American colonists, her war-ships guarded their coasts against intruding merchant-ships, while the penalty of death was imposed upon any one who should engage in trade with foreigners. And so her colonies had to submit to scanty and exorbitantly-priced supplies; and Europe was shut out of the field, although the trade with the New World could have furnished profitable employment for the entire commercial shipping of Europe in that age. And each seaport engaged in the American trade would have been a centre of Demand, quickening the adjoining region into increased production, in order to provide the requisite supplies, both in agriculture and manufactures.

Nevertheless the inadequacy of Spanish industry to supply the wants of the American colonies ere long became so great as to be intolerable even to her own merchants. In defiance of the restrictive laws then established, the Spanish merchants applied to those of Flanders and other countries for a portion of the requisite commodities, and then transhipped these goods to the New World in Spanish vessels. It has been said that Honesty—good faith in bargaining, and a solid respect for engagements generally—mainly owed its origin to Commerce, which cannot possibly be conducted on a large scale without mutual trust and a faithful observance of contracts. In those days—though we doubt whether it can be said in our times—the faith of a merchant was much surer than that of prince or soldier. And it has been recorded of these transactions of the Spanish merchants that, although such dealings were forbidden by law, the foreigners never had ground to complain of breaches of contract upon the part of their Spanish brethren.

And now we come to an event, or condition of affairs, which would appear incredible, were it not abundantly attested in contemporaneous history. Spain and her people began to suffer from a scarcity of the precious metals! Although many millions sterling of gold and silver had been imported into Spain since the discovery of America, a monetary dearth—a scarcity of the precious metals began to be felt and acknowledged throughout the Pen-

insula during the reign of the Emperor, Charles V. Some portion of the precious metals, from America, of course, was drained from Spain by the above-mentioned mercantile transactions, which served the useful purpose of diffusing a supply of money through the other trading countries and gradually throughout Europe. But the foreign wars of ambition, and the operations of Spanish policy abroad, must have been the main cause and agents of the diffusion of the precious metals; and even the early circumstances of Charles V. not inconsiderably contributed to this diffusion. His youth was spent in Flanders, and a host of greedy Flemish courtiers invaded Spain when he assumed the throne. These adventurers naturally "feathered their nests" with gold and silver, as the most readily transferable kind of wealth. Dr Robertson says, "During the time of Charles's residence in Flanders, the whole tribe of pretenders to offices or to favour resorted thither,"—approaching the young King though his favourite but avaricious Minister, Chievres. Ximenes, the sagacious and patriotic Regent, inveighed earnestly and indignantly against the venality of the Flemings: but he was powerless to stop this covert drain of Spanish treasure. "Great sums of money were drawn out of Spain," says the historian of that reign. Afterwards, speaking of the attempted rebellion, or opposition to the royal policy, on the part of several of the local Juntas or parliaments, Dr Robertson remarks that "what the Junta stood most in need of was money, to pay their troops. A great

part of the current coin had been carried out of the country by the Flemings."

The candidature of King Charles V. for the vacant imperial throne of Germany occasioned, or was attended by, another drain upon the metallic treasure of Spain. The Spanish King surpassed his rivals and competitors for the Imperial crown in power of bribery, still more than in personal qualifications. Brilliant and brave as he was, the King of France had not the American mines at his back. Well-guarded trains of mules, laden with Spanish coin, traversed the rude highways of Germany to the castle-gates of the hesitating Electoral Princes. In these various ways, the drain of the precious metals from Spain became so serious during a portion of the sixteenth century that it may be reasonably conjectured that this temporarily renewed dearth of "the wheels of Trade" contributed to the hardly less remarkable stagnation and decline of the national industry which contemporaneously attracted the notice of the Spanish Government.

What is equally noteworthy is, that this temporary scarcity of the precious metals in Spain, despite the influx from the American Mines, was terminated and remedied by the operations of a kindred agent to that which mainly produced it. It was the wars and policy of royal ambition which had mainly sent abroad the metallic treasure of Spain, diffusing it throughout neighbouring countries in military and political or diplomatic expenditure; and it was when the tide of Spanish power

began to ebb that wars, fought within her own borders, brought back into Spain a portion of the gold and silver which in her heyday she had parted with. The War of the Succession brought foreign armies upon the Spanish soil and military expeditions into her harbours. And so, in her military decline, Spain recovered what she had lost when her ambition was triumphant. The Bourbons, left at last on the Spanish throne owing to the sheer weariness of Europe, gave sedulous and not unsuccessful attention to reviving the national industry, and improving the American trade by relaxing its fetters. But other nations gradually forced their way into that trade; while the growth of international commerce in Europe, and a reopening of commercial intercourse with the countries of Asia, thereafter, prevented any plethoric accumulation of gold and silver in the Peninsula, and established a wider diffusion of the precious metals throughout the world than had ever hitherto prevailed,—the various countries participating in the metallic supply, as a rule, chiefly in proportion to their production of exportable commodities.

In the two following chapters, I set before the reader, first, the amount of the precious metals yielded by the Mines during the period which, for convenience of nomenclature, I call the "Silver Age,"—namely, the three centuries subsequent to the discovery of America, during which the production was mainly of Silver; and, secondly, I shall show the contemporaneous changes thereby pro-

duced in Prices, or the value of Money. Such changes, as need hardly be said, are the result of the combined operation of the supply of the precious metals and the demand or requirement for them. This demand, during the period which we now approach, is quite as remarkable and worthy of study as the produce of the Mines,—as will appear from the fact that although the supply of the precious metals continuously enlarged, its effect in raising Prices, or lowering the value of Money, soon reached the maximum, and became exhausted, although the influx of specie into Europe actually trebled in amount,—augmenting to an extent which, if viewed in advance, seemingly rendered unavoidable a plethoric accumulation wholly fatal to the value of the precious metals, or at least destructive of the properties which render them suitable as Money.

This increased demand for Money is but another phrase for the abolition of Barter and the growth of industry and enterprise, of trade and production, throughout Europe. It results also from an increase of the comforts and luxuries of life, and in the possession of personal property and reserve-wealth,—circumstances which alike augment the exchanges of goods and labour, and require additional means for storing property in a mobile and compendious form. Not less, or most of all, are the precious metals needful in international commerce and in the operations of war. All these things augmented rapidly in Europe in the period subsequent to the discovery of the New World. In previous pages

we have described some portions of these changes — expansions of national and individual life and energy; and we have referred to some of the industrial, political, and social powers and tendencies, then latent or budding, whose expansion was destined to create and characterise the future career of renascent Europe, and, in so acting, to rapidly increase the requirements for gold and silver as Money. These changes, in short, constitute the progress of Europe, and more or less of the world at large. For a full understanding of them the reader must invoke his knowledge of general history,—for the subject is beyond the possible or desirable scope of any work of this kind. Nevertheless there is one element of the case so interesting in itself, and so paramount in its influence upon the history of the precious metals during the period which we now approach, that it deserves somewhat more than to be merely mentioned among the causes which arrested the revolution in the value of Money in Europe,—by absorbing and sending into distant regions so large a portion of the produce of the American Mines, which otherwise would have accumulated redundantly and with diminishing value in the Western world. It is also a very striking and exact parallel to what has happened, so remarkably and beneficially, in the Golden Age of our own times.

The Eastern Trade, like Eastern civilisation, is the oldest in the world; and it rests upon such enduring bases, alike of earth's produce and of man's desires,

that it remains the most interesting and not least prominent branch of the world's commerce at the present day. It is the commerce which Europe and the New World carry on with the grand old world of Asia. The earliest and grandest cities of the human race — Babylon, Nineveh, Damascus — were the magnificent emporia of that Trade, and in great part also were its offspring. Palmyra, Solomon's "Tadmor in the Desert," whose ruined architecture is still lovely and graceful as the palm-trees which gave to the city its Classic name, was built amid its oasis as a halting-place for the caravans in their journey from the Euphrates or Levant, across the Syrian Desert. Petra, with its chief dwellings hewn in the red rocks of Northern Arabia, was a similar halting-place on the overland journey to Egypt. Baalbek — where the stately columns and richly sculptured architraves of the Temple of the Sun now rise aloft in a solitude, in the valley between the twin mountain-chains of the Lebanon — was another camping-place for the caravans between Damascus and the Levant, before the beasts of burden in long file breasted the stony heights of the Coast-range. Tyre and Sidon, with their successor Seleucia, were the old seaports of that Trade on the Mediterranean. Alexandria was the emporium of the same Trade at the mouth of the Nile, — built by the Macedonian conqueror, to grow wealthy by the passage of the sea-borne portion of the commerce, which crossed from the Red Sea to the Nile by the canal of the Pharaohs. So, too, in subsequent times, did Byzantium, Venice,

and Genoa grow rich and famous as the recipient inlets of that Trade into Europe.

Almost from the earliest, certainly from prehistoric times, there was a sea-route as well as a land-route for this Eastern Trade. When King Solomon built Eziongebir on the Red Sea, as the sailing-port for his ships to the (now rediscovered) Ophir of Southern India, bringing back gold, ivory, and peacocks, he was sagaciously claiming a share in an already established trade. It would, truly, have been a miracle had the Hebrews, an isolated and inland people settled on the hills of Palestine—or even had King Solomon himself, been the first to conceive the opening of a sea-route with the Far East, especially when such a trade had to be established on the distant shores of the Erythrean Sea. But such was certainly not the case. The Hebrew monarch doubtless acquired his knowledge on this subject from his friendly intercourse with the Court of Egypt, and probably also from his semi-dependent ally the King of Tyre; for, under the supremacy of Egypt, Phœnician seamen were sometimes largely employed by the mighty Pharaohs even in voyages in the Southern Seas.

It can hardly be doubted that the enterprising merchants and commercial navies of Babylon—the earliest and greatest commercial emporium of the Old World—had explored the coasts and traded with the people of peninsular India; and the subsequent Classic historians narrate how this trade had been established, and how much it was prosecuted from

the side of Egypt. Pliny speaks of the Trade in its matured form,—after the early and tedious system of hugging the coast and reaching India by circumnavigating the northern half of the Indian Ocean, had been replaced by a much shorter and really safer route directly across that ocean. He relates how the navigators came to observe the periodical course of the winds which on the Indian Ocean blow steadily during one-half of the year from the east, and during the other half from the west. Thereupon the pilots abandoned their ancient slow and dangerous course along the coasts; and as soon as the western monsoon set in, they took their departure from the port of Ocelis, at the mouth of the Arabian Gulf, and stretched boldly across the ocean to Southern India. The uniform direction of the wind—which supplied the place of the compass, and rendered the guidance of the stars less necessary—conducted the ships to the port of Musiris, on the Malabar coast,—and which, we may observe, must have been one of the nearest seaports to the now rediscovered gold-regions of Wynaad and Mysore. There the Egyptian and other traders took on board their cargo, and, spreading their sails to the eastern monsoon, returned across the ocean, completing their voyage within the year. Pliny, writing of this trade, states that in his day no less than a hundred and twenty ships sailed annually from the Arabian Gulf to the coasts of India.

Such was the Eastern Trade during the Roman Empire,—under whose dominion the union of nations

was more entire, and their intercourse more perfect, than has yet been beheld over an equal area in the heart of civilisation. There was no jealous barriers of rival States—Rome permitted none,—still less, any hostilities. The “lords of the world” despised trade, and had little to do with it. Even for navigation they had less taste than the Egyptians, Greeks, or Carthaginians; and it was on land, and chiefly by the march of the Legions, that they made their discoveries in geography. Roman discovery was simply military conquest. But they watched over the trade of the world, as an affair of police,—establishing peace and security of property throughout their far-reaching empire: content to know that the commerce which they protected, yet engaged not in, would yield a share of its profits in tribute-money to Imperial Rome.

And so, while Rome remained supreme in Egypt, up to Philæ and the Cataracts, and in south-western Asia from the Ægean and the Levant to Mount Taurus and the Euphrates, the Eastern Trade flowed steadily in its old channels,—alike by sea through Egypt, and overland by Damascus or Antioch, to the Mediterranean. But the decline and fall of Rome gradually brought about the disconnection, both political and commercial, of Europe and Asia. The irruption of the intolerant but rapidly civilised Arabs, followed by the desultory and devastating inroads of the Mongols and Seljook Turks, entirely closed Syria and Egypt against Europe; while the Ottomans, pouring across the Bosphorus and Dar-

danelles, put an end to Byzantine trade and power. When the Syrian route became closed, a thin stream of Eastern trade made a way for itself over the Hindoo Koosh, through Bokhara, to the Caspian, and thence by the Volga and the Don to the Black Sea and Constantinople. But with the capture of Constantinople by the Ottomans, this route also was closed; and the entire trade between Europe and the East, which had existed ever since the days of Tyre and Sidon, came to an end. In fact, at that time, the leading Powers of Asia had transferred themselves by conquest into Europe. The Crusades had failed, and Europe was on the brink of becoming politically a province of the vast Eastern continent, of which geographically ours is but a peninsula. The Arabs occupied Spain, and made settlements in Italy and the Mediterranean Islands; the Turks held South-Eastern Europe as the land of their adoption, —extending their conquests up the valley of the Danube, and over what is now Southern Russia; while the Tartars ruled in Moscow and spread terror into the countries of the West.

But even during the darkest night of Europe, the memory of the East and its riches did not die out. To reopen a route to the East became the one predominant idea and ambition as soon as the first breath of renewed life flushed the still infant nations and their Governments. A halo of renown, of magic, or dazzling fable, has in every age encircled the name of the East,—of that ancient and mighty continent to which Europe has owed population,

civilisation, everything that it started with on its now famous career; to which our earliest sages, like Pythagoras, made pilgrimages in their search for wisdom in its heights; and to which Herodotus went to learn the history of the grand old empires of the primitive world. The East is the birthplace of the Religions of the world;—it is the land of Chenghiz and Tamerlane, of Akbar the Great and Confucius, —sagacious rulers or grandest conquerors of the human race. Fertile in soil and climate, and all-embracing in its produce, its people, also, have a voluptuous enjoyment of life, together with a sense of colour and a taste for lovely and refined manufacture, beyond the rest of mankind. Thus Asia has met the wants of luxurious desire; while from Alexander to Napoleon and Byron, the grandest genius of Europe, alike in arts and arms, has sighed for the congenial air and wide unconventional world of Asia as a field for the display of its powers or for the indulgence of its desires. Its very title, “the East,” gives a vagueness well commensurate with the unequalled magnitude of the continent; while its character, as the long-left cradle of the Aryan races, and also as the Orient, the Land of the Rising Sun, touches the imagination even of the least literate classes of European society. Even at the present day, when the golden fruit, which so long hung ready to the grasp of each bold adventurer, has been shaken down from the boughs of the “Pagoda-tree,” the East, in its miniature India, still attracts the enterprising youth of the British Isles, who turn to

it passionately from the dull routine and choked ante-rooms of trade at home.

The young world of Europe never ceased to dream open-eyed of the "barbaric pearl and gold of Ormuzd and of Ind,"—as these gleamed, also, contemporaneously, before the mind's eye of the poet Milton. Of all the fascinations which the East has exercised over the thoughts and imagination of mankind, the chief and underlying element has been its reputation for vast wealth in gold and silver. The fanciful "Tales of the Genii" have been almost rivalled by the legends and "travellers' tales" of oriental magnificence,—of the wealth and pageantries of the Courts of the East, from the "Persic pomp" of Horace to the glories of the Great Mogul and the medieval fables of the Court of Prester John. And in authentic history, some of the most exciting and romantic chapters are those which narrate the daring enterprises by land and sea by which the young world of Europe strove to reopen communication with the grand old kingdoms of Asia, after the earliest and direct routes through Syria and Egypt had become closed and barred by the races which overthrew and established themselves upon the ruins of the Eastern empire of Roman Byzantium. It was the fame of the "Great Khan" and the Golden Horde in the depths of Upper Asia, and of the Mogul Emperors in India, which led Marco Polo, Mandeville, and other bold adventurers to undertake their marvellous expeditions into the unknown solitudes of the Old World—into the realms of heathendom,

of paganism, and Mahound, bringing back the first tidings of Cathay, a new world of civilisation lying at the extremity of Asia. It was to reach the Indies and Cathay and the fabled Court of Prester John that the Portuguese mariners toiled and Vasco de Gama succeeded in circumnavigating Africa, unknowing at the outset whether that continent did not extend to the Southern Pole,—for the classic records of its circumnavigation by the navies of the Pharaohs and Carthage were still unknown to reviving Europe. It was with the same object that Columbus, forced to adopt another route than that just discovered, and conceded in monopoly by the Pope to Portugal, faced the wild Atlantic, steering his little squadron through the region of the great calm and of the “grassy sea,” and stumbled upon a New World. And, wellnigh forgotten though it now be, it was the same object—viz., to reach the Indies, and by a route unmonopolised by Spaniard or Portuguese, that the ever-memorable search for the North-west passage was begun by the mariners of England and the North, who hoped to reach the golden Indies by rounding the American continent on the north as Magellan and the Spaniards had done by the south. Even the North Cape was turned and Spitzbergen discovered in a similar search eastward, along the ice-bound coast of northern Asia. The Indies, in short, were the golden goal of daring discoverers for several centuries both by land and sea.

The new era in the trade with the East, and whose commencement marked the birth of modern Europe,

opened with the discovery of the Cape of Good Hope by the Portuguese, and of America by Columbus. Both of these memorable enterprises were undertaken for the sake of opening a way to the East, whose old renown for wealth in gold and silver had never died out, and had been revived by travellers' tales, especially by Marco Polo and Mandeville, on their return from their marvellous solitary expeditions into further Asia. Under the comparatively tolerant rule of the Ottomans, also, adventurous merchants, reopening the Syrian route, carried their wares down the Euphrates to Bagdad and Bussorah. The Tartars, too, were driven out of Muscovy, and the rising empire of Russia at length carried its trade across the steppes of Upper Asia to the Wall of China. Thus, three separate commercial routes were established between Europe and the East; and the Eastern trade continued to expand, until it has attained its present development by the construction of the Suez Canal, and the establishment of the American route by San Francisco.

This new or revived trade with the East, although highly profitable to those engaged in it, proved from the outset very disappointing as regards the prime object for which it had been desired. At that time, apart from the attractive glamour which always pertains to the precious metals, Money, in the form of gold and silver, was the great want of Europe and the most alluring promise of Asia. It was to reach and tap the golden wealth of India and Cathay that the daring Portuguese mariners toiled to sur-

mount the "Cape of Storms," and that Columbus stumbled upon the New World, which at first appeared a lamentable obstruction in the path to the Indies. But this obstructing continent proved far more fraught with the desired precious metals than the region which was the purposed goal of these bold discoverers. And when the golden stores of the Incas, and the still more abundant silver from Potosi and the Mexican mines, poured into Europe, the newly-opened trade with the East, instead of adding to the metallic treasure so rapidly accumulating in Europe, began to drain it away. A portion of the gold and silver, ever increasing in amount with the Eastern trade, passed through Europe as through a sieve, on its way to the very countries from whence it had been confidently expected that a new supply of the precious metals would be obtained.

This consequence of the reopening of the trade with the East was so unlooked-for, and, if thought of, would have been deemed so improbable or impossible, that the fact itself at first escaped observation,—even although no less than four hundred millions sterling of gold and silver were in this manner drained from Europe to Asia during the three centuries subsequent to the discovery of America. It was not until about the beginning of last century that this drain of the precious metals to the East became observed and commented upon by historical and other writers of a reflective cast of mind. But, for a considerable time, it was a mystery. The current was manifest: there it flowed—a flood of gold and

silver ever running Eastwards, breaking and disappearing upon the shores of the Levant and the Indies. And as the fact became investigated, it clearly appeared that this Eastward current of the precious metals had been long in existence, and was a permanent phenomenon. But how was it to be accounted for? Easy as the explanation may be nowadays, the fact at first was simply recognised without being explained. It was a mystery. Gold and silver seemed to be attracted to the East in somewhat the same inscrutable manner as the baser metal iron is attracted to the Poles.

It seemed so strange that Europe's first stock of gold and silver, the abounding treasure which had made splendid the imperial cities of Rome and Byzantium, should have come from the East, and yet that the revived intercourse with the East should be accompanied by what appeared to be an entirely opposite state of matters,—in short, that the course and flow of the precious metals should have become reversed. But this chain of thought arose from an imperfect knowledge of history, or an indiscriminating study of it. Men confounded the results of Conquest with the effects of Commerce. They failed to observe that the immense wealth of the Roman world in gold and silver came into Europe—to Italy and Byzantium—as actual spoils of successful war or in tribute from conquered countries in the East. It was forgotten that even under the Roman Emperors, the trade with the East had produced a constant drain of the precious metals from Italy. It was for-

gotten that even Roman authors had bewailed this wasteful drain of the precious metals (which even in those days were spoken of as *το χρημα*, *res*, in fact, "*the thing*"), sent Eastward in purchase of the silks, brocades, spices, ointments, and other luxuries of Asia and Egypt. Pliny reckoned the annual drain of specie from Italy to the East at four hundred thousand pounds; and Cicero lamented that the luxury of his countrymen served to deprive Italy of no small portion of her stock of the precious metals. And thus the East, during both her long periods of military inferiority to Europe, alike under the Roman Empire and since the birth of Modern Europe, has never failed to regain or reconquer in the commerce of Peace the coveted metallic treasures which she had lost in the career of War.

In truth, the fine and highly generative climate of those regions which we call "the East," and their vast extent of rich cultivable soil,—together with the few and simple wants of the people, whom the fine climate renders wellnigh independent of clothing and houses,—while the warmth and steadiness of the seasons, and the occurrence of two harvests or ripening-times within the year, render the soil doubly productive and human labour effective all the year round;—these various industrial advantages have sufficed to render "the East" a largely exporting region,—the produce of the labour of the people being usually, because readily, in excess of their own requirements. This surplus production, whether in manufactures or raw material, being highly export-

able, because much desired by the nations of the West, it has happened from the earliest times of commerce that the East has exported more largely than it imported,—the balance having to be paid in the precious metals, ever acceptable to the East.

How powerful has been this course of Trade with Asia will be shown in the extraordinary effect which it had in providing employment for the precious metals, and thereby maintaining their usefulness, during their superabundant influx into Europe from the New World,—as again, in the sequel of this work, under the still more remarkable flood of gold from America and Australia during the present generation.

CHAPTER X.

PRODUCTION OF THE PRECIOUS METALS DURING THE SILVER AGE (1492-1810).

FOR fully half a century after the discovery of America, the amount of gold and silver which reached Europe from the New World was quite insignificant, according to the notions of the present day ; but it appeared great, and its influence was momentous, at a time when the entire stock of the precious metals in Europe is reckoned to have sunk to little more than thirty millions sterling (less than a single year's revenue of the Roman Empire under Augustus), and when the annual produce of the European mines did not exceed £100,000,—a sum reckoned no more than sufficient to replace the annual waste and loss upon the small existing stock. Moreover, the European mines had lost their original richness ; and, owing to the absence of capital and mining skill, together with the unsettled state of the country, the annual produce, small as it was, was only obtained at a comparatively heavy cost of production.¹ Owing to these

¹ Nevertheless, under the excitement created by the American

circumstances, the arrival of a bullion-bearing ship from the New World—a Spanish galleon from Lima or Acapulco—was a great event relative to the actual monetary condition of Europe, and still more so as exciting the public mind with expectations of far larger supplies of the precious metals from the strange new world in the West,—expectations which were justified, and which grew stronger each year with the fuller tidings, and with large actual arrivals of the precious ores.

During the first thirty years after the discovery of the New World, the average annual amount of bullion acquired by the Spanish conquerors was only about fifty thousand pounds of our money. And this was chiefly in gold. Then came the conquest of Mexico and Peru, and between 1520 and 1545 the amount of gold and silver acquired by the Spaniards averaged annually six hundred thousand pounds sterling. Up to this time the precious metals had been obtained by the Spaniards almost entirely as the spoils of conquest, by barter, and in tribute from the Indian tribes. The blood-stained spoils of the Incas amounted to a large sum in the precious metals,—the ransom of Atahualpa amounting to 800,000 pounds, according to Garcilasso de la Vega, but only to 140,000 or 150,000 pounds according to Gomara; and the plunder of Cuzco, says Herrera, yielded 400,000 pounds. Just before the middle of the sixteenth century, the supply of treasure assumed a

mines, increased attention was given to the European mines; so that in the sixteenth century their produce increased to £150,000 a-year.

new form, and became largely increased. The Spaniards began to discover the rich silver-mines of the Andes, both in Mexico and Peru, as well as the gold-beds of Guiana and Cinaloa. The great event of that kind—one which has remained memorable in history, and which quickly produced a vast change in the value of money in Europe, was the discovery (in 1546 A.D.) of the mines of Potosi—a veritable silver-mountain, whose rocky structure was permeated in all directions by veins of silver, filled with ores of the richest quality. The silver was discovered on the surface by an Indian, Diego Hualca, when in pursuit of a strayed llama on the mountain-side, and who, when pulling up a bush, observed filaments of pure silver among the roots. In consequence of the working of the numerous veins of Potosi, which the Spaniards ruthlessly prosecuted by means of the compulsory labour of the Indians, the production of the precious metals in America rose to two millions sterling a-year: and this was the annual average amount of production from the year 1546 down to the end of that century,—Potosi itself yielding at the rate of £600,000 annually, or actually sixfold the old supply of the precious metals in Europe.

We come now to a remarkable circumstance, and one which became still more noteworthy in the subsequent history of these American mines,—namely, that the quality of the ores rapidly deteriorated, while the aggregate yield continued to increase. The silver-veins of Potosi, when they were first

worked, and as they existed near the surface, consisted of ores which yielded fifty per cent of pure silver, even although the mines were worked negligently and with the rudest appliances. At that time the smelting process, or burning of the ores, was alone in use, and consequently the loss of silver was very large. About twenty years after the discovery of the Potosi mines, another discovery was made in the same locality, only secondary in value to that of the silver-mountain itself. In the year 1567 the famous quicksilver mine of Huancavelica in Peru was discovered, in fortunate contiguity to the Potosi mines; and this led to the adoption of the process of amalgamation, whereby the silver is extracted from the ores in virtue of its chemical affinity for, and readiness to combine with quicksilver:—the two metals combining and forming a heavy amalgam, easily separable from the ores and dross, and from which thereafter the silver can be extracted without loss, while the quicksilver is used over again in the same process. It was estimated that by this quicksilver process, the yield of precious metal from the ore was increased three and a half times,—proving how enormous had been the previous loss by waste in the smelting process. But the silver-veins of Potosi were found to decrease greatly in richness below the surface, while, of necessity, the cost of mining and of production simultaneously increased. So rapidly did the richness of the ore diminish, that in 1574—only thirty years after the discovery—the proportion of silver yielded by the Potosi veins is

stated to have been merely one-fourth or one-fifth of what it was at first, in 1546.

Large as was this deterioration of the silver-veins as they receded from the surface, the decrease in the yield of the ores rapidly became much greater, until the proportion of silver in the ores diminished to a mere fraction of what it was in the early years of the mines. During the thirty years subsequent to the discovery of Potosi, the supply of silver, although trifling in quantity compared with subsequent times, was at its best as regards the richness of the mines and the small cost of production. The ore lay at the surface, where the veins cropped out of the face of the mountain, while one-half of these ores was pure silver. This is a fact to be remembered in connection with the notable change, or actual revolution, which contemporaneously began in the value of Money, which at that time consisted chiefly of silver. The thirty years between 1545 and 1575 embraced alike the discovery of Potosi, and the discovery of the great quick-silver mine of Huancavelica, together with the adoption of the amalgam process (first discovered in Mexico) of extracting the ores. Thus the period comprised the richest stage of the silver-mines, together with greatest ease in working and cheapness of production, owing to the ores lying richly and plentifully at the surface. But with each successive generation of workers, the mines deteriorated more and more; so much so that, according to Humboldt, in 1789—that is, rather more than two centuries after the mines were at their best—the yield of silver from the ores was only in the

ratio of 1 to 170 compared with the original yield. To show the present quality of these silver-mines, at least in so far as they are correctly represented by the mines of Mexico, we may add that Mr Tooke thirty years ago estimated the average yield of the Mexican silver-mines at "three or four ounces of silver for a quintal (100 lb.) of ore." A vast decline, truly. In the middle of the sixteenth century (say 1550) the average yield of pure silver from the same quantity of ore would have weighed no less than fifty pounds, or 800 ounces—two hundred times more than the recent yield! Owing to the great structural and geological difference between veins of gold and of silver—the latter of which are traceable in undiminished size to vast depths in the mountain-rocks,—it is probable that no parallel to this deterioration of silver-mines will be found in the history of gold-mines. Indeed the difference between gold and silver mines is as great as can well be conceived: silver-mines being similar in character to mines of the common metals, such as tin and copper; whereas gold-mines, properly so called (and not gold-beds of alluvial deposit) are simply "reefs" or veins of quartz, impregnated with gold, but never presenting any "pockets" or masses of the pure metal.

The remarkable and progressive decline in the richness of the American silver-veins was accompanied by the not less remarkable fact in history that, despite this deterioration of the silver ores, the production of silver, and also of gold, continued steadily to increase throughout three successive cen-

turies. The aggregate amount of gold and silver obtained from the New World between 1492 and 1600 A.D. is reckoned at £130,000,000,—the annual produce of the mines during the latter half of the sixteenth century having been about two millions sterling. Throughout the next century (1601-1700 A.D.) the annual yield of gold and silver in America averaged fully three millions sterling. Throughout the eighteenth century the annual produce of the American mines and gold-beds rose to more than seven millions sterling; and at the beginning of the present century the annual production of the precious metals in America amounted to nearly ten millions sterling,—fivefold what it had been between 1550 and 1650; during which period (as will be shown) the Silver Age, or the large new supplies of the precious metals subsequent to 1492, produced their maximum effect in raising prices, or in lowering the value of Money, in Europe and the then civilised world.

While the discovery of the New World thus led to an enormous increase in the production and supply of the precious metals, the production of gold and silver became augmented also in Europe; and a not inconsiderable supply of gold began to be obtained from Africa, in the course of the maritime explorations and the traffic with that recently circumnavigated continent. Not only has the passion for searching after gold and silver been an enduring element in human nature, but, as already stated, an increased supply of the precious metals was one of

the greatest wants of the time. Accordingly when the energies of the European peoples began to revive, or to become newly developed, considerable attention was directed to the working of the old mines which the Romans in their day had turned to valuable account. Both in Spain and in Hungary the old "lords of the world" had gathered the cream of those treasure-beds : indeed in Spain the successive workings of the mines by Phoenicians, Carthaginians, and Romans had exhausted the veins of silver to such a depth that it seems to have been beyond the mechanical or engineering skill and power of that subsequent age to reopen the mines as a profitable enterprise. The Spanish monarchs, also, had no adequate inducement to undertake so difficult a task when Columbus had opened for them the abundant supplies of mineral treasure in the new-found continent beyond the Atlantic. Indeed King Ferdinand prohibited mining for the precious metals in Spain, and transferred the great body of the miners to the New World. And thus it happened that the great silver-mine of Bebullo, which had supplied the sinews of war to Hannibal in his marvellous military invasion of Italy, remained unworked, and even unexplored—a scene of great excavations then half choked up ; and through the mile-long tunnel, then, as at this day, flows in full stream a river fed by the hidden springs and internal waters of the mountain.

The mines of Hungary do not seem to have ever fallen into equal neglect, and it was from them that came the chief portion of the insignificant supply

of precious metals (chiefly gold) yielded by Europe in the Middle Ages. The mines in Saxony, also, and particularly those in the Hartz Forest, which had been discovered in the tenth century, at first yielded a good return; nor was their working abandoned at the beginning of the present century. Throughout the first half of the sixteenth century, this European supply of bullion is believed to have amounted on the average to £100,000 a-year, and during the second half of the century to £150,000 a-year,—or about £13,000,000 in all, between A.D. 1492 and 1600. During the next century, Africa began to yield a small amount of gold, from the Guinea Coast, which region afterwards gave its name to the first well-known gold-coin of England; and during this period (A.D. 1601–1700) the total supply of gold and silver, from Europe and Africa conjointly, amounted to about thirty millions, averaging £300,000 a-year. In the eighteenth century—when European settlements, made by England, Holland, and France, increased on the African coasts—the supply of the precious metals from Europe and Africa considerably increased,—amounting to nearly a hundred millions, or about treble what that supply had been in the century previous. The American supply was almost entirely silver; from Africa, entirely gold; and from Europe, chiefly gold.

As regards the total amount of the production of the precious metals prior to the present century, I must repeat that the estimates, as given by

various writers, chiefly on the authority of the illustrious and painstaking Humboldt, cannot be regarded otherwise than as approximations to the truth,—as indeed is shown by the wide divergences between the statements or computations of the various authorities,—notably, Jacob and Danson, both of whom rely mainly, or supremely, upon Humboldt, who personally examined the records of the American mines and collateral sources of information. It is enough for our purpose, and it seems most nearly to approach the truth, to say that the total supply of the precious metals between A.D. 1492 and 1810, alike from America, Europe, and Africa, amounted to between thirteen hundred and fourteen hundred millions sterling.¹ Of this amount, silver constituted

¹ TOTAL PRODUCTION OF GOLD AND SILVER : 1492-1830.

					Per annum.
1492-1521	{ America, .	£1,508,000,	or £52,000 a-year	}	£152,000.
	{ Europe, .	2,900,000,	„ 100,000 „		
1521-45	{ America, .	15,750,000,	„ 630,000 „	}	730,000.
	{ Europe, .	2,500,000,	„ 100,000 „		
1546-77	{ America, .	67,200,000,	„ 2,100,000 „	}	2,250,000.
	{ Europe, .	4,800,000,	„ 150,000 „		
1578-1600	{ America, .	46,200,000,	„ 2,100,000 „	}	2,250,000.
	{ Europe, .	3,300,000,	„ 150,000 „		
1601-1700	{ America,	307,000,000,	„ 3,070,000 „	}	3,370,000.
	{ Europe & Africa, }	30,000,000,	„ 300,000 „		
1701-1809	{ America,	786,000,000,	„ 7,147,000 „	}	8,000,000.
	{ Europe & Africa, }	94,000,000,	„ 853,000 „		
1810-29	{ America,	84,000,000,	„ 4,200,000 „	}	5,150,000.
	{ Europe & Africa, }	19,000,000,	„ 950,000 „		
		<hr/>			
		£1,464,158,000			

See also Note at end of this chapter.

not quite three-fourths as a maximum, and fully two-thirds as a minimum ; and, on an average of the various estimates, about three-fifths of the aggregate supply was silver and two-fifths were gold.

Such was the vast amount of the precious metals—of which nearly nine-tenths came from the New World—which were obtained for the use of mankind during the three centuries which followed the discovery of America. It was a grand result of the revival or new birth of Europe ; and, excepting the comparatively small supply from the European mines, it was entirely a consequence of the vast maritime discoveries which rendered illustrious the closing years of the fifteenth century. In some degree these discoveries helped the peoples of Europe to cast off the yoke of Asiatic conquest and invasion ; but rather, and more justly, these discoveries and the check or repulsion of the Asiatic invaders of Europe are attributable to the same source,—namely, the force of youth, of rude but vigorous life, which at that time began to breathe through the long prostrate and still unorganised peoples, who thenceforth were not only to become the sole masters of their own small continent, but were also to enter upon a career of wellnigh universal dominion. The unveiling of the Earth by Columbus, Vasco de Gama, Magellan, Drake, and Cook, was but the prelude to the expansion of the White Race, the Aryans of Europe, as conquerors or colonists, into every quarter of the globe. Not less true is it, that for the triumphant development of their manifold powers, includ-

ing the domestic development of the industrial arts and mechanical appliances, the European peoples were greatly, indeed indispensably, indebted to the treasures of the Mine which the discoveries of Columbus so abundantly supplied. And not less were the European peoples indebted to those treasures of gold and silver in utilising and turning to best account their discoveries and conquests beyond the seas, by engaging in commerce with the new countries,—thereby establishing new and lucrative fields for their own industrial energies,—enriching their small and naturally poor continent with the profits of the world's trade, and also drawing together the four quarters of the globe, more or less peacefully, in the civilising bonds of Commerce. And so, what imperial Rome was to the Mediterranean world, Modern Europe became to the entire globe; and as Greece and Rome of old planted their small but civilising colonies and settlements, Europe, and especially England, has since then planted peoples and nations, now grown to a fresh and vigorous manhood, and with whom, doubtless, will chiefly lie the future of the world's fortunes.

NOTE.

Humboldt is the great authority for the production of the mines of the New World down to the opening years of the present century. Jacob is the great authority with respect to the precious metals in ancient times, and to the produce of the mines down to the year 1829. Jacob is also the great authority with respect to the consumption

of the precious metals, and the amount of gold and silver, and of coin, existing at various periods. Finally, as authorities upon such subjects, we have Tooke, in his *History of Prices*, and Danson, in a valuable Paper read before the Statistical Society in 1851. These authorities differ considerably; but we believe the following statistics, compiled from them, are sufficiently correct for the information of the general reader:—

PRODUCTION OF GOLD AND SILVER.

(In Millions Sterling.)

A.D. 1492	} America: to Europe & Africa: }	Gold, 291,	Silver, 831.	Total, 1122 millions.
A.D. 1803		" 80,	" 60.	" 140 "
		371	891	1262
A.D. 1804	} America: to Europe & Africa: }	Gold, 142,	Silver, 249.	Total, 391 "
A.D. 1848		" 90,	" 30.	" 120 "
		232	279	511

A.D. 1492-1848—Gold, 603; Silver, 1170. Total, 1773 Millions.

Between 1492 and 1810, the total production of the precious metals is estimated by Jacob at not quite 1400 millions sterling, and by Danson at not quite 1300 millions: say, as the average of these authorities, £1,340,000,000,—of which amount two-fifths were gold, and three-fifths silver.

The production of gold and silver, down to 1830, as divided into periods, is stated by Mr Jacob as follows, in millions sterling:—

In America.

	Yearly.	Total.
A.D. 1492 to 1521 (chiefly gold), . . .	£52,000	£1,508,000
" 1521-45 (discovery of Potosi), . . .	630,000	15,750,000
" 1546-77,	2,100,000	67,200,000
" 1578-1600,	2,100,000	46,200,000
" 1601-1700,	3,075,000	307,500,000
" 1701-1809,	7,147,000	786,000,000
" 1810-29,	4,200,000	84,000,000
		£1,308,158,000

In Europe and Africa.

A.D. 1492-1600 (Europe),	£125,000	£13,000,000
" 1601-1700 (Europe and Africa), . . .	300,000	30,000,000
" 1701-1809 " "	853,000	94,000,000
" 1810-1829 " "	950,000	19,000,000

£156,000,000

Total Production, A.D. 1492-1830, 1464 millions sterling.

Summarised in four periods, the production of gold and silver, down to the year 1830, is stated by Mr Jacob as follows, in millions sterling:—

	America.	Europe & Africa.	Total.		Yearly.
A.D. 1492-1600,	131	13	144	or	1.40
" 1601-1700,	307	30	337	"	3.37
" 1701-1809,	786	94	880	"	8.75
" 1810-1829,	84	19	103	"	5.1
Total, £1,464,000,000.					

CONSUMPTION OF THE PRECIOUS METALS: 1492-1810.

(Tooke's Summary of Jacob:—vol. vi. p. 368.)

	Millions.	Millions.
Produce of America,	1492-1809, 1257	1492-1829, 1341
" Europe and Africa,	" 137	" 156
Converted into articles of use or ornament	" 440	" 552
Loss by Wear and Casualties,	" 175	" 193
Exported to Asia,	" 399	" 439
Existing as Coin in Europe & America in 1809,	380	In 1829, 313

Gold and silver in all forms in Europe and America at end of 1809, 865 millions; at end of 1829, 820 millions. Of these amounts, as above shown, 380 millions sterling existed as coin in 1809, and 313 millions at end of 1829.

Danson gives the total produce of the Mines, from 1492 to 1848, at 615 millions of gold, and 1198 millions of silver: total 1813 millions sterling. Of this amount, he estimates that one-third of the silver (= 398 mils.) and one-eleventh of the gold (= 55 mils.) had disappeared "by loss, wear, and exports to Asia:" leaving 1360 millions sterling of the precious metals (gold, 560,—silver, 800 millions) existing in Europe and America in 1848.

The existing stock of the precious metals in 1803 is reckoned by Tooke and Danson at 992 millions (gold, 354,—silver, 638); which would give a total stock of about 1040 millions sterling in 1810; in which year Jacob reckons the stock of coin at 380 millions, or less than one-third. The same authorities reckon the stock in 1830 at 1137 millions (gold, 410—silver, 727); at which date Jacob reckons the stock of coin at 313 millions sterling.

CHAPTER XI.

EFFECTS OF THE SILVER AGE UPON THE VALUE
OF MONEY (1492-1800).

EIGHTY years had passed since the Discovery of the New World, and the sixteenth century was entering upon its last quarter, before the large new supplies of gold and silver produced any recognisable change in Prices, or effect upon the value of those metals as Money. Adam Smith, the ablest and standard authority upon this subject, says—"The discovery of the mines of America does not seem to have had any very sensible effect upon the prices of things in England till after 1570; though even the mines of Potosi had been discovered more than twenty years before." Possibly, and not improbably, the value of money (which then consisted solely of the precious metals, and chiefly of silver) had begun to experience some change in England anterior to that date, but it is impossible to trace such a change owing to the fluctuations in the purity or weight of the coinage during the previous portion of the century. Owing to the scarcity of the precious metals in

Europe, several States and monarchs had endeavoured to enlarge the supply of money by debasing the coinage; and under Henry VIII. several debasements and alterations were made in the coinage of England. But in 1560 Queen Elizabeth, acting upon the advice of her sagacious Ministers, commenced a recoinage of the English currency, whereby the coins were made to possess substantially the same value as was subsequently maintained. It can hardly be doubted that the Queen's purpose of recoinage was in some degree suggested by the increasing supply of the precious metals; and undoubtedly, but for the new supply, the restoration of the metallic money of the realm to its old value—or rather, to the value which was then deemed proper to give to the various coins—would have been hardly practicable, and indeed an act of injustice.

The fact that so long an interval elapsed between the first influx of the precious metals from the New World and the first recognisable effect of that influx upon the value of money, is one which is well worthy of notice. Doubtless it was owing, in some degree, to the slowness of locomotion and the obstacles to international commerce and intercourse in that age; but also it must probably have been owing to the previous great scarcity of the precious metals, and the consequent immediate absorption of a portion of the new supply in already existing but unsatisfied wants,—especially in connection with Spanish enterprise in America and the

new career of the Portuguese in the East. The monetary reservoir of Europe being wellnigh empty, there could be no overflow or redundancy of the precious metals until a considerable portion of the supply had gone simply to the filling of it. Also, it may be regarded as certain that a redundancy of the precious metals, and a consequent change in the value of money, occurred in Spain anterior to such a change in England. Spain being the country into which the new supply of the precious metals primarily came, the monetary change there was unusually great. This is shown by the statements of two Spanish authors of credit : namely, by Ortiz, who says that "the quantity of gold and silver which fell into the power of the King of Castile caused it to fall to one-sixth of its former value;" while Don Sancho Moncada, boasting of the national wealth in gold and silver, says that "before the discovery of the Indies he who possessed one hundred reals was as rich as he who now enjoys five hundred : for, with the abundance of gold and silver its value has fallen, and the value of whatever has to be bought with money has likewise increased." But there are no means of tracing a change of prices in the Peninsula at that time ; and the authorities on the subject have been content, or compelled, to rely almost entirely upon certain records or Tables of Prices which have been preserved in our own country and in France.

In England, about the year 1575, the value of Money was found to have fallen one-half. The

change became so manifest as to attract public notice. And as the public of that time, or the more or less educated classes, consisted entirely of persons of property — chiefly landowners and merchants — the notice then taken of the falling value of money naturally took the form of complaint. Rents, and fixed incomes of all kinds, owing to the fall in the value of money, no longer purchased so much as before; and the landowners, who then constituted the wealthy classes, had to curtail their establishments, dismissing servants, and lessening the aid which they used to give to the peasantry on their estates. The same complaint was made with respect to wages, which did not at first rise with the rise of prices; and the general aspect of the times was that of an apparent dearth of commodities, owing to the increase in the quantity of money, while the benefits of the change were (as usual) taken as a matter of course, exciting no equal attention. Indeed the fact that the change lay in an increased supply of money, and not in a diminished supply of commodities, was hardly observed; and the common complaint was of the increased inclosure of waste or common lands, and of the depopulating of the rural districts by the increase of pasturage in consequence of the high price of wool in England owing to the new demands of the Flemish manufacturers. British manufactures at this period likewise began to extend and prosper; while, as already said, the embarrassments produced by the change in the value of money

were not understood or attributed to their true cause.

This serious fall in the value or purchasing power of money was all the more striking inasmuch as previously the value of money in Europe had been rising. In other words, the prices of all things had been falling. The remnant of the old stock of the precious metals, left by the Roman Empire, was steadily decreasing and disappearing, under the ordinary effects of loss and abrasion of the coins; while the European mines had become so exhausted of their ores, and the working of them almost abandoned, that there was no new supply to replace the continuous loss. Proverbially, the darkest hour is just before the dawn; and it is historically certain that the scarcity of the precious metals in Europe was at its worst when Columbus sailed on his ever-memorable voyage of discovery. The value of money had been greatly on the rise all through the previous century, and the progressive rise continued even for a considerable time (about a quarter of a century) after America was discovered. In truth, the spirit of enterprise, then beginning to operate in Europe, would of itself, by increasing the demand for money, tend to aggravate the scarcity; and prices were still at their lowest point when the marvellously rich silver-mines of Potosi were discovered, half a century after the first voyage of Columbus. During the century previous to the discovery of the New World, the monetary dearth had been becoming intense. During the first half of the fifteenth century

(A.D. 1400-1450), the price of the quarter of wheat was four ounces of silver (Tower-weight), equal to about twenty shillings of the money of the present day; and by the end of the century (A.D. 1500) the price had fallen to only half that amount, or about ten shillings of our money: and this extremely high value of money continued down to about 1570, when it suddenly fell—in other words, prices rose—a hundred per cent.¹ From a consideration of the various English and French Tables of prices, which demonstrate these monetary changes, Messrs Tooke & Newmarch state the facts as follows:—"That the price of wheat in England *fell* [continuously declined] from about 1400 to 1510 A.D.; that from about 1510 to 1560, the evidence of the Tables is seriously impaired by the state of the then coinage; that the first manifestation of a great and decisive rise is in 1571-80, or perhaps 1561-70; and that the intrinsic rise of prices [*i.e.*, the rise due solely to the change in the value of Money] then occurring was about 100 per cent over the prices of the immediately preceding period."

Thereafter, the fall in the value of Money pro-

¹ The successive changes in the value of silver immediately prior and subsequent to the discovery of America are shown in the following table, which gives the price of the 8-bushel Winchester quarter of ordinary wheat.

Price of Wheat.

Prior to A.D. 1450			4 ounces of silver.	
1450	"	1570	2	"
1570	"	1620	6	"
1620	"	1636	7.5	"
1637	"	1700	7.2	"
1701	"	1775	7	"

ceeded rapidly, and to a most remarkable extent. About the year 1575, as just stated, prices became double what they had been throughout the previous portion of the century; by the end of the century (1600 A.D.) prices had trebled; and in the year 1636, they had become no less than three-and-a-half times as large as they had been prior to 1570, and during the sixty years previous (A.D. 1510-70). The rapidity with which this revolution in the value of money took place is not less remarkable than the extent of the fall. The change was all comprised within seventy years, or the ordinary limit of human life. It is suddenness, or rapidity of occurrence, which especially creates the hardship of any change in the value of money; and, notwithstanding the great influx of treasure into Rome in the Augustan age, History records no monetary revolution of equal extent, and, still less, of equal rapidity of occurrence, with that which followed the first large influx of the precious metals from the New World. The child who in 1560 inherited a sum of £350 found ere his death in mature years that this sum had become, by the fall in the value of money, only £100. Such, also, was the hard fate of all possessors of a fixed income; but, on the other hand, the industrial classes, merchants, and generally the money-making portion of each community, prospered exceedingly:—as will be shown in the sequel, when we come to deal with the effects of Rising and Falling Prices, or of changes in the value of Money upon the condition of a people.

We may offer a remark as to the particular period (1636-40 A.D.) at which Prices were at their maximum—in other words, when the fall in the value of the Money (silver) reached its lowest point. It must be remembered that wheat is the standard by which the value of money was judged, and also that English tables of prices furnish the chief basis of computation; so that one may properly look into history to see whether there were any exceptional circumstances then affecting the price of wheat. Now the epoch in question (say between 1630 and 1640) witnessed the Civil War in England, the conflict between Charles I. and the Parliament,—a circumstance which doubtless decreased the area of cultivation and the attention to agriculture, thereby tending to raise the price of corn.

Not less remarkable was the sudden and entire cessation of this Fall in the value of money. The fall reached its maximum in 1636, or between 1630 and 1640; and then it stopped. Adam Smith, whose statement has been verified or at least adopted by all subsequent authorities, says:—"Between 1630 and 1640, or about 1636, the effect of the discovery of the mines of America in reducing the value of silver [the standard money of that time] appears to have been completed; and the value of that metal seems never to have sunk lower, in proportion to that of corn, than it was at that time." This sudden and early stoppage of the fall in the value of money was, we repeat, a very remarkable circumstance, considering that the annual supply

of the precious metals (and especially of silver, the money of that age) was only about one-third of what it ultimately became (as in 1800 A.D.), and that it continued to increase for fully a century and a half,—rising from barely three millions sterling a-year in 1630 A.D. to three and a half millions in 1700 A.D., and to an average of no less than eight millions throughout the eighteenth century,—and the annual supply at the beginning of the present century being upwards of ten millions sterling, or about $3\frac{1}{2}$ times as large as in 1636, when the value of money reached its lowest point, and the great monetary revolution occasioned by the gold and silver from the New World was completed, or at least reached its maximum.

In the previous chapter—by purposed anticipation, in order to simplify the subsequent course of the narrative—we have described generically the chief forces and circumstances which produced a vast absorption, or enlarged demand and employment for the precious metals, whereby the fall in the value of money was arrested despite a steadily increasing supply of the precious metals from the New World. We have shown how Modern Europe, the Europe of to-day, was then taking shape, emerging out of the chaos produced by the irruptions of the Barbarians, which had everywhere overthrown settled government and destroyed the civilisation implanted by Rome, while also greatly modifying, if not wholly altering, the old nationalities of Europe by the infusion of alien blood.

We have seen how the New Nations, at length become inspired with life and learning, asserted their nationality and independence, repelling after long struggles the recent Asiatic invaders, who had so largely possessed themselves of our continent alike in the east and south; and how the revived or rather new-born nations of Europe, having organised themselves within nearly the same geographical limits as each of them still maintains, launched upon a marvellous career of geographical discovery, followed by a rapid development of trade and industrial production, alike among themselves and with the vast and far-off regions which they had discovered, or which had become revealed afresh to human knowledge and commercial enterprise. Europe, for the first time, became a civilised community of States, trading more or less freely with one another, as well as with the New World beyond the Atlantic, with south-western Asia, and, through a new and ever-open sea-route, with the famous countries of the remote East.

“In no period of the world,” says Mr Jacob, “was the change in all mercantile and agricultural relations and connections in any degree approaching to that which took place between the termination of the fifteenth and of the sixteenth century. In the next century, though more of the precious metals was produced, the change was less extensive; and it was the same in the century between the years 1700 and 1800. It is to fix attention on this great change that such an extended view has been taken.

Its effect has been felt in every quarter of the globe, and has had an influence on the prosperity of the whole civilised race of man, — not by the wealth that the gold and silver amounted to, but by the stimulus it [as Money] began to administer to every branch of industry, by the impulse it communicated to physical, mechanical, legislative, judicial, and even moral investigations, and by the attachment it inspired to the sound principles which introduced legal, civil, and political freedom.”¹

It was the above-described growth of industrial production and domestic exchanges, as well as of navigation and international commerce, which produced a great and steadily increasing requirement for the precious metals as money, while the growth and accumulation of wealth led to a considerable absorption of gold and silver in articles of ornament and luxurious pomp. And not less was the requirement for the precious metals permanently increased by the gradual abolition of Barter and the introduction (or, considering the primal Roman civilisation, the re-introduction) of the invaluable system of money-payments, in coins of gold or silver.

But there was another fact, different in kind yet of similar import, which must be borne in mind in explanation of the comparatively early cessation of the fall in the value of money, and the attainment of a regime of steady prices, or of a settled value of the precious metals as money. This was the fact, so

¹ *History of the Precious Metals*, ii. p. 113-14.

well understood by all students of monetary science and events, that in exact proportion as the stock of money becomes large, the value of money becomes more stable, being less and less affected by continued additions to the stock. An annual addition of a million sterling would have produced a much greater effect upon prices at the end of the fifteenth century, when the existing stock of the precious metals in Europe was only forty millions, than a much greater addition could do when the existing stock had become many times larger. Especially is it to be observed that, despite the peculiar endurance or indestructibleness of gold and silver, the loss by accidents and by abrasion and casualties upon a large stock of the precious metals requires of itself a very considerable annual supply to replace that loss. This loss by casualties and abrasion amounts, according to the best authorities, to one quarter of a per cent per annum—that is, to 25 per cent in the course of a century—upon any given amount of gold and silver. Thus, speaking roundly, of 100 millions existing at the beginning of a century, there will remain only 75 millions at the end of it; after two centuries, there will remain about 56 millions, or little more than a half; and at the end of 400 years, there will remain only about 30 millions of the original 100 millions. Thus the larger the accumulated stock of coin and bullion becomes, the greater is the portion of the annual supply requisite to make up the current waste or loss upon the existing stock.

For example, in the latter half of the sixteenth

century (1546-1600), it is reckoned that £200,000 sufficed to replace the annual waste of the precious metals, the stock being then very small; whereas in the first portion of the present century (1800-1830) ten times that amount, or two millions sterling a-year, were required simply to maintain the existing stock of gold and silver at its level. In like manner, as the stock (and consequently the annual amount of the loss or waste) increases, the smaller is the portion of the yearly supply which constitutes an addition to, or produces an increase of, the existing stock. Thus in the earlier portion of the Silver Age, nearly the whole of the annual supply of the precious metals was a net increase or pure addition to the then existing stock; whereas three centuries afterwards, as just stated, no less than two millions sterling of the annual supply went merely to replace the annual loss of the precious metals by casualties and abrasion. In fact the annual supply of the precious metals which sufficed to diminish the value of money by one-half in the sixteenth century would, at the beginning of the present century, have only sufficed to maintain money at its then ordinary value.

And so it came to pass, from the conjoint operation of these various causes, that within two centuries after the discovery of America, the value of the precious metals began to rise again. Although, as already said, the annual produce of the American mines continued steadily to increase, the contemporaneous requirement or demand for the precious metals overtook the supply, and prices began to

fall, before the seventeenth century reached its close. As Adam Smith says, "the value of silver [the standard money of that time] seems to have risen somewhat in the course of the present [*i.e.* eighteenth] century,—and it had probably begun to do so even some time before the end of the last." Thus, dividing the Silver Age, or the effects of the new supply of the precious metals from America, into successive periods, we find that during the first eighty years after the discovery of America, no perceptible effect was produced upon prices or upon the value of the precious metals; but that about the end of this first period Prices were suddenly found to have doubled, showing that the value of money or of the precious metals (most notably, silver) had fallen one-half. During the next seventy years the revolution in prices, or change in the value of money, proceeded with remarkable and wholly unparalleled rapidity,—prices becoming three and a half times as much as they had been at the discovery of the New World. Thereafter for only half a century prices remained steady at the maximum, which had been reached in 1636; and finally, from about 1690, prices tended to fall again; until, in 1810, a renewed dearth of the precious metals set in,—producing effects alike in politics and society the importance of which has hardly been adequately recognised by any historian of those times.

These latter changes in the value of money are in no way traceable to changes in the amount of the contemporaneous supply. On the contrary, as

repeatedly stated, throughout all these changes the annual supply of the precious metals continued largely to increase; so much so that by the beginning of the present century—more than a hundred years after the precious metals had begun to grow scarce again, or began to rise somewhat in value—the annual supply amounted to no less than ten millions sterling, or threefold as much as it had been in the reign of Queen Elizabeth. Obviously, therefore, the causes of these changes in the value of the precious metals must be looked for in the circumstances, not of the Supply, but of the requirement, or Demand—which, in truth, is in regard to all things the prime and most potent source or cause of Value. And in addition to the general and normal causes of increasing demand for the precious metals, generically described in the previous chapter—*e.g.*, the emergence of Europe from the system of Barter, and the increase of industrial production and of commerce, most notably of the trade with the East—it seems to me that there were some specific and exceptional causes of this sort in operation towards the close of the seventeenth century: viz., at the monetary turning-point, when, for the first time since the year 1492, the precious metals began to rise in value.

This epoch witnessed the great wars of ambition undertaken by Louis XIV., the “Grand Monarque” of France. Under Louis IX. a standing army had for the first time been introduced in Modern Europe; trained soldiers replaced the rude levies of earlier times. France, too, following the example of Spain,

had become consolidated into a single homogeneous kingdom ; and Louis XIV., concentrating in himself the whole powers of the State, and aided by generals and engineers of the highest ability, engaged in a great war of ambition very similar in character to those undertaken more than a century afterwards by Napoleon the Great. War—at least civilised and modern warfare—is a most powerful absorbent of the precious metals. Standing armies, regular troops, although far superior in power, are also much more costly than the previous system of feudal levies. The soldiers have to be paid like day-labourers, while their equipment and the munitions of war become more expensive as military science progresses. When the army is engaged in a campaign, all the ordinary expenses are multiplied and increased. The commissariat, or system of supply, constantly moving to and fro with the troops, and requiring large numbers of draught-animals, is of itself very costly, besides the difficulty of procuring supplies in a hostile or barren country. An Attila or Genghiz Khan, it is true, was little encumbered by such difficulties ; for their hosts consisted mainly of cavalry, hardy horsemen of the Steppes, moving swiftly and destroyingly as the flight of locusts. But such far-sweeping irruptions of war are exceptional. What is more, although the Generals of the seventeenth century had little compassion for the vanquished and the non-combatants, they had not yet devised the system of “making war support war,” which the mighty Corsican turned to so much account in the present

century. It may almost be said that the commanders of those days were more intent upon destroying the lands and property of their enemies than of making use of these for the supply of their own wants. Turenne, at the bidding of the cruel Louvois, ravaged the Palatinate with as little mercy as the Imperialists in the Thirty Years' War had shown in the sack of Magdeburg.

England appears to have been the first country to feel this war-made scarcity of the precious metals. Under William of Orange—to whom, indeed, the offer of the English throne had been chiefly acceptable from the prospect it gave him of drawing England firmly into the Alliance against France and for the independence of the Low Countries,—England was the soul of the anti-French League. Besides the troops which she sent to the war, she gave to the Allies in Marlborough a perfect war-captain, the greatest general of his day; and further, besides maintaining her own troops in the field, England furnished no small part of the “sinews of war,” in the shape of subsidies, to her Continental Allies.

While the precious metals were thus becoming scarce—or at least while their scarcity was being accelerated—by the war, a very considerable difference existed between the monetary position of Great Britain and that of the Continent, the seat of war. And this difference is one which deserves to be clearly pointed out; because it is a circumstance which naturally recurs whenever Great Britain takes part in a European war,—as happened most

notably during the great French War at the beginning of the present century: upon which occasion it gave rise to a very serious mistake on the part of our monetary authorities and the British Parliament. On such occasions — namely, when Great Britain has to maintain an army on the Continent, while also subsidising Continental Allies (a procedure which in truth is indispensable, considering the smallness of her own fighting power, and also the best or only way in which she can fully utilise her peculiar superiority, viz., in wealth or financial power),—the precious metals necessarily flow from the British Isles to the Continent, and specially to those countries which are the chief seat of the war. Coin and bullion, as the only forms of international money, flow from England and accumulate on the Continent. Hence it follows that there may be, at such times, a great scarcity of coin in our own country while the precious metals accumulate in other parts of Europe. No doubt, when War is thus afoot, it creates of itself a special requirement for money; and thus, during a great war, even on the Continent there may be a scarcity of coin; but there, the scarcity is only relative, while in our country it is absolute. During a great war, the precious metals pass to and fro, from one country to another, with the movements of armies and the course of military operations; but the total or aggregate amount of coin on the Continent remains, to say the least, undiminished. Like the movements of the sea in its tides, the amount may

rise in some countries while ebbing away from others: but the aggregate amount remains the same. In the British Isles, on the other hand, the stock of coin at such times is drained away. Hence it is easy to see that, upon these occasions, the value of coin may be much enhanced here, without any equal change, or without any rise at all, in the value or purchasing-power of the precious metals on the Continent,—a truth strikingly illustrated in recent times (when such circumstances have become more carefully observable) during the Crimean War, when the scarcity of specie in Great Britain and France was accompanied by an abundance of metallic money, and consequent impetus to trade and cultivation, in the Turkish empire. This is an important point,—to be further elucidated and commented upon in connection with the more momentous events of this kind which occurred, and which so seriously affected England, during the wars of the Great Napoleon. In fact, the common saying that “Money finds its level like water” is eminently delusive in practical affairs. It is only true when Time is taken into the account, and fully allowed for: and, just as in lakes, and even in the same river, water exists at many different levels, so there are numerous obstructions to a uniformity in the level or value of Money,—as indeed any man may observe even at the present day.

It remains to be said — what, indeed, may be regarded as obvious,—that the ebb and flow of the precious metals, their transference by war from one

part of the Continent to another, seldom fails, of itself, to affect the fortunes of particular countries:—as, for example, in Spain during the War of Succession, when it is recorded as an established fact, that the amount of coin then brought back into the Peninsula by the operations of war, gave new life to Spanish industry, and constituted an epoch of revival in the national fortunes. As previously narrated, the wars and foreign expenditure of Charles V. and Philip II. had dissipated the Spanish stock of specie, causing Spanish trade and industry to languish from a lack of currency. But what War had taken away, War gave back,—a return of specie which was to Spain the only good result of the War of Succession.

In England the scarcity of the precious metals, and consequent lack of currency, occasioned by the export of specie to the Continent, and especially to the Low Countries, during the wars with the Grand Monarch of France, was very serious. Trade, and the influences which affect it, were not much regarded by the annalists of those times; and we know of the then prevalent scarcity of coin almost solely in its imperial aspect, as affecting the Government. It is reckoned—that is, an estimate has been made—that, at the accession of William of Orange to the English throne, the whole amount of gold and silver coin in this country did not exceed seven millions sterling; and the successive exports of specie for the support of our army in the Netherlands so exhausted this stock that in 1694 the Government found it im-

possible to obtain any further supply of specie. The "sinews of war" were exhausted; and William III.—whose heart and soul were in the war for resisting the military aggressions and ascendancy of France in Europe—was deeply chagrined and profoundly disquieted at this paralysis of England's military power, and at the prospective danger to our State which would ensue from the conquest of the Netherlands by France. It is not less true (although the fact is not equally recorded) that the domestic or national resources of England, arising from the trade and industry of her people, must have been seriously depressed by the lack of currency,—an evil which, however subtle in its operation, really impedes trade and production in a manner as serious as if the means of traffic were arrested—as if the highways of England had become blocked by the snows of winter, or dilapidated by the rain-torrents of a Tropical summer.

This was a severe crisis in the fortunes of England. But, as not seldom occurs in the life of nations as of individuals, this untoward event and great emergency, being sagaciously treated, became the source and starting-point of a new and higher career of prosperity. A great Idea, and a still greater man, boldly and skilfully "plucked from the nettle Danger, the flower Safety." William Paterson, a master-mind in commerce and finance—a man trusted and devotedly followed by the Scottish nation, and at this time one of the most influential merchants of London—proposed to the Government

a project for the establishment of a great Bank of Issue, whose notes, or bills for small sums, issued upon the basis or security of ample and highly negotiable property, and also being convertible into coin of the realm "upon demand" or at the pleasure of the note-holders, would circulate as money as freely as the coins which they represented. His project was accepted, and in 1694 the Bank of England—the first Bank of its kind in the world—was established, and then commenced a career of national usefulness which continues at the present day.

Two years afterwards, in 1696, the Bank of Scotland was founded,—the authorship of which is likewise attributed to Paterson. That the establishment of this Bank was simply Paterson's project applied to Scotland—a country not then united with England—is sufficiently manifest; but it seems doubtful whether Paterson were the founder of it in the same sense as he was the Founder of the Bank of England; and it is upon record that he took exception to some terms of its constitution. The ground of his objection has been forgotten;¹ but there is

¹ Paterson was one of the first, and indeed the most ardent and prominent supporter of the Union between England and Scotland; and by some it may be conjectured that his opposition to the Bank of Scotland was really of a fundamental character, and that in founding the Bank of England he meant it to be a Bank of Issue for the whole kingdom. But, however ardent for the legislative Union of Scotland and England, the idea which I have here suggested is wholly opposed to Paterson's principles in Banking as in Trade at large. He was entirely opposed to Monopoly, and it was in flagrant disregard of his principles and desires that the Bank of England sought, and

a well-known difference in the constitution of the two Banks which would account for, and probably actually occasioned, the objection or opposition which Paterson offered to the Bank of Scotland.

Unlike his brilliant fellow-countryman and younger contemporary, Law of Lauriston, William Paterson, familiar not only with high commerce, but with mercantile life in all its grades and in many of its branches, was profoundly impressed with the fundamental necessity that Paper-money—that new and vastly potent agent of civilisation—should be kept clear of the snares which so readily may beset it, by a resolute insistence that this currency should be constantly maintained at the full value of the precious metals which it so usefully and economically represented. Doubtless, also, Paterson felt that precautions for this purpose were peculiarly needful when this invention, this new and giant-like agent, was in its infancy. His project for establishing a great Bank of issue—the Bank of England—had been vehemently opposed, alike by honest critics and by jealous rivals; and he must have felt that any failure on the part of the Bank of Scotland would prove seriously disastrous to the Bank of England, and to the whole scheme of monetary economy which he had so much at heart,—the success of which, he wisely discerned, was indispensable, not merely as the salvation of England in her present war-crisis,

the Government granted to it, that monopoly (or rather, intended monopoly) of Joint-stock Banking which soon involved England in a series of the direst domestic disasters.

but for the permanent industrial and commercial prosperity of the kingdom for generations to come.

Accordingly, in founding the Bank of England, Paterson had required, and called to the assistance of his project, first, an ample capital, or amount of coin invested in the business. This he accomplished by originating the joint-stock system of enterprise (or the association of a number of persons for the attainment of an object beyond the means of any individual or ordinary firm or partnership), whereby the requisite amount of capital (£1,200,000) was provided. This was a wonderfully large amount of coin for that time; and the fact that it was subscribed within a few days is a striking proof of the eminent position and great influence of Paterson among the mercantile community of London,—a position and influence which are otherwise fully attested by the annals of the time. But Paterson deemed that more than this was requisite in a novel undertaking of such magnitude, and upon which the future prosperity of this country so much depended. In all forms of Money, the chief—and indeed the only absolute and universal requirement is, that the money shall circulate freely at its full nominal or representative value within the limits of circulation designed for it. It is not enough that any form of money should actually possess the value which it represents, but also that it should be known to do so, throughout its circulating limits. If the Bank's notes were not acceptable or readily negotiable among the English public, Paterson's great project

would have failed. Accordingly, besides the general credit of the Bank, resting upon its capital and the reputation of its managers for probity and skill, the credit of its notes was further maintained by the fact that they were issued upon, and (so to speak) represented, an equal amount of Government Securities,—in fact upon the credit of the State or nation itself: a security which could not be surpassed, and also the one which was most widely known and readily understood. These, then, together with the Bank's engagement to give coin for its notes whenever this was asked for, constituted the firm basis upon which Paterson established his great project of the Bank of England,—an institution which not only effected an economy of the existing money (the precious metals) by receiving deposits and lending them out in loans to Trade, but furnished a currency of its own, adequate for all the domestic requirements of the kingdom.

But in the constitution of the Bank of Scotland, the provision that the notes should be issued against, or covered by, an equal amount of Government securities was omitted. There was a clear advantage in this omission, provided that the Bank were successful,—in other words, if this diminished security did not impair or destroy the credit or general acceptableness of the Bank's notes. In the Bank of England, the capital was invested in (was sunk in purchasing) the Government securities upon which the notes of the Bank were to be issued. Accordingly, this capital was not available for the other operations of the Bank; and the Reserve of coin,

required for "cashing" any notes that were presented for payment, and also to meet the claims of depositors, was (and had to be) set apart out of the moneys deposited with the Bank. On the other hand, in the Bank of Scotland (where the notes were issued simply upon the general credit of the Bank), the Capital was free for employment: of itself, it was sufficient—and at first much more than sufficient—to constitute the Reserve required in connection both with the notes and the deposits; so that the whole of the Deposits could be lent out in loans and discounts; and, at first indeed, part of the Capital also. Hence, in proportion to their Capital, the Bank of Scotland could lend out much more than its English prototype, and consequently could render more service to Trade and industry.

So obvious a fact could not possibly have been overlooked by Paterson; but the necessity for caution at the initiation of so grand a project could hardly be overrated; and the early difficulties which beset the Bank of England, some of the severest of which were the result of organised intrigues and hostile combinations against the new establishment, amply justify the cautious policy of its Founder. The Scotch, however, are, and from the first have shown themselves to be, a peculiar people as regards both Banking and paper-money. The widespread intelligence as well as native caution and shrewdness of the people have made Banking with its note-currency a steadier and completer success among them than in any other country of the world. And

hence the system of what may be called "unsecured" note-issues—or notes secured only by the credit and general assets of the Banking Company—proved a success, and was adopted by all the other Scotch Banks, when subsequently established. Nevertheless, Paterson's system of maintaining the credit and value of Bank-notes by issuing them upon an equal amount of Government securities has recently been adopted in the United States, and is now being Ministerially urged as a requisite for all such issues, even in the case of Scotland, where the experience of nearly two centuries has proved it to be unnecessary. But the high authority of Paterson can hardly be pleaded in support of such a change; seeing that precautions which were eminently wise at the outset and on the mere initiation of Banks of Issue, tend to become superfluous when the system has become matured and firmly established in the minds and usages of the whole people. Indeed there is nothing which depends so much for success upon long usage and traditional acceptance as the currency of a country. And it will be a most unusual event if an economy which was found practicable and safe in Scotland before the end of the seventeenth century should have to be abolished as unsafe now, and the economy of the national wealth proportionately curtailed.¹

¹ I cannot but remark that in proportion as wealth and capital have increased in this country, a reactionary spirit has animated the Legislature in Currency matters—manifested by successive restrictions upon notes or Banking currency, and by an increase of cost upon their issue,—proportionately neutralising the nation's growth of capital, and arresting the natural fall in the rate of interest.

These events occurred before the Treaty of Union, and while Scotland still had a Parliament of its own. The Bank of Scotland obtained no monopoly, nor did it ask for restrictive privileges of any kind. According to the principles invariably and resolutely upheld by Paterson, perfect freedom of trade was established in Scotland; and other banks were allowed freely to establish themselves upon their own credit, as the banking and currency requirements of Scotland increased. This system of freedom in Scotland bore splendid fruits. One after another, at considerable intervals of time, large banks were established—whose capital and proprietary furnished a widely-known guarantee for the notes which they issued (in making loans and “discounts” or advances to the industrial classes) and for the deposits, or money entrusted to their keeping. This was a natural result of the system of freedom. Left to themselves, the Scottish banks and the public settled the matter without difficulty or mistakes. Large banking companies arose, because the public reasonably preferred to deal with such establishments. Private banking was almost unknown, because it could not offer a guarantee comparable to that of joint-stock banks. What is the credit of a single individual in comparison with that of a numerous company? Under this perfectly free system of banks and banking-currency, not a single note-holder in Scotland ever lost a penny; while the little wealth of the country was utilised and virtually multiplied to the fullest possible extent through the agency of these banks of issue, lending

an unparalleled and otherwise unattainable impetus and support to the then small and feeble Trade of the country. In England, in defiance of the principles and desires of its founder, Paterson's great invention was cramped almost at the outset, and was doomed to a very different career. It speedily fell from the state in which it had been created, and went to the bad. Paterson was opposed to any monopoly. By his scheme or project of the Bank of England, the Bank was to stand and prosper upon its own merits; but it was to have no monopoly or privileges such as would prevent or impede the establishment of other banks of issue throughout England, as these became wanted and desired by the public. But Paterson did not long remain one of the directors of the Bank;¹ and the breadth and liberality of his views (which in this instance, as in others, were far in advance of his time) were soon abandoned by the great institution which he had founded. Within fourteen years after its establishment, the Bank of England made use of its powers and opportunities to obtain for itself special privileges, and a strict monopoly of its position as a joint-stock bank of issue. In the year 1708, the Government being in want of funds to carry on the war against the great monarch of France, applied to the Bank for

¹ It appears that the chief cause of Paterson's withdrawal from the direction of the Bank was owing to the jealousy of his colleagues with respect to a project which he had for establishing a Land Bank—rendering the same benefits to Land which the Bank did to Trade. But he had no connection with the Land Bank which was afterwards abortively established.

further assistance ; and the Bank, while agreeing to raise and lend the required amount of coin to the Government, stipulated in return that no other joint-stock bank of issue should be allowed in England. The Government, pressed for money, assented : and so, freedom in banking was summarily suppressed in England, and a monopoly of the only good and safe form of this invaluable system was established in favour of the one first Bank : thereby rendering the growth of a sound system of banks absolutely impossible. The prohibition against the establishment of any banking-firm consisting of more than six partners, was framed solely and avowedly in order to favour the Bank of England, in return for its loans to Government, by preventing the rise of any bank sufficiently powerful to compete with it. Thus, in return for getting a loan from the Bank, the Government of the day (A.D. 1708) inflicted upon the nation a burden which, although little more than theoretical at the time, has since then repeatedly inflicted the most widespread disasters on our community, and which has done more to check the industrial career of this country than any other single cause which can be named.

That happened which always happens. If you prevent a people from supplying their wants in the best form, they will do so—they are forced to do so—in an inferior way. Joint-stock banks being prohibited, a number of private ones arose. Great banks being wanted, but prohibited, their place was of necessity taken by small ones. Private gentlemen,

merchants, even small shopkeepers of local notoriety, started as bankers in answer to the wants of their localities. In truth, a landed gentleman or other local magnate rendered a service to his neighbourhood by becoming their banker, and extending to them the great benefit of banking accommodation which the laws prevented them from obtaining in any other or better form. In Scotland, the banks were established in the capital, or in one or two of the leading towns (like Glasgow and Aberdeen), from whence they extended their operations over the country by means of branches: so that a few great banks with numerous branches have amply sufficed for the wants of all Scotland. In England the case was quite different. Private banks cannot spread over the country by means of branches. A private firm or individual may be known and trusted in his own neighbourhood, but his name and credit are not generally known beyond those limits. It is only large banks, whose capital and proprietary are widely known, which can successfully extend their operations over the country, or which can maintain their solvency under the heavy losses to which even well-managed banks are occasionally liable. And in England no banks of this kind were allowed to be established. A number of petty banks was the natural or inevitable result. Every little district or town had its little bank or banks, which, whether well-managed or not, did not possess that first requisite of a bank,—adequate capital, as a reserve and guarantee for its operations.

These little banks multiplied rapidly during each period of prosperous and hopeful trade,—doubtless conferring much immediate advantage upon the industrial community. At one time, there was about a thousand of them throughout England. But each outburst of commercial enterprise is usually, if not invariably, followed by a reaction or collapse; and these banks, being possessed of small capital or reserves, fell in scores on every occurrence of commercial disasters, or from a panic howsoever occasioned. Whenever it became known that a bank had suffered losses (as through connection with some person or firm which became bankrupt), the depositors naturally took alarm, and frequently engaged in a “run” upon the bank for payment of the moneys deposited with it. A sudden demand of this kind is inconsistent with the very existence of Banking: if persevered in, every bank, however strong, must give way under it. But the very weakness of these small English banks provoked a “run,” as well as rendered it immediately fatal. Accordingly, whenever a commercial crisis or political panic arose, these banks gave way in great numbers, spreading loss or ruin over the country. Their notes, too, of course became discredited and useless; and as these notes formed the chief portion of the provincial currency, these bank-failures occasioned an incalculable amount of distress.

These repeated failures of the English banking-system necessarily excited serious attention. The evil was too great to be overlooked. But the Gov-

ernment did not discern the real cause and root of the evil,—namely, the weakness of the banks; the existence of a vast number of small banks, which could not even amalgamate with one another, owing to joint-stock banks being prohibited. The Government failed to see the simple truth, that it is impossible to have a sound banking currency without sound banks. And a sound system of banks could not be established owing to the monopoly conferred upon the Bank of England. The Government allowed the root of the evil to remain, and meddled and muddled with the note-issues. Like an ignorant physician who has to deal with an eruptive complaint, they attempted to cure the disease by putting a plaster on some of the eruptive spots. They prohibited the issue of small notes; which small notes seemed to them to be the great cause of the malady. It never occurred to them to consider how it was that small notes, which formed almost the entire currency of Scotland and Ireland, had produced no catastrophes in those countries, but had proved eminently beneficial. Small notes—that was the only thing which the Government could imagine as the root of the evil: it was not in the banks, but in the issues of the banks, that the mischief was supposed to lie. And so there began that course of restricting the operations and curtailing the benefits of the Banking system as founded in 1694, until it was fossilised as it stands in the year 1844.

The Banking system invented by Paterson, and first adopted in the closing years of the seventeenth

century, needs no modern tribute to its vast power and usefulness. Yet the true character and purport of its operations is too little perceived, or kept in mind. The great object of the System was to supply money, currency, when desired in exchange for property of other kinds. It was a machinery for the conversion of Fixed into Floating capital, in the form of currency, in proportion as this was needed,—under peculiar conditions and to a limited extent. What a man wants, especially in trade, is not merely goods or property, but money or currency,—in which shape his property becomes most available for his wants. The chief, indeed the only absolute or indispensable quality in currency is, that it shall be received in purchases and payments at a certain known value (or purchasing power) by the community among whom it is to circulate. Thus, there are several kinds of currency, varying in accordance with the transactions in which they are employed, and with the sphere, classes, or community in which they circulate. Thus, Bills (promises to pay in coin or other legal money at a fixed date) constitute the wholesale currency of Trade and Commerce. The trade-bill represents the value of (say) a particular consignment of goods, which are to be delivered to the holder of the bill; and by taking this piece of commercial currency to a bank, the owner gets the bill (as representing the goods) exchanged for or converted into banking or general currency, such as circulates among all classes. In short, the banking-system established by Paterson was very far from

being a mere machinery for receiving on deposit and lending out money. Its primal and most useful function was to supply the nation with currency, issued in exchange for property of a suitable kind,—varying in amount with the extent of the demand, and thereby keeping stable the value of money, the standard of value and medium of exchange.

Such was the agency which came in the nick of time—in the closing years of the seventeenth century—not to arrest the returning scarcity of the precious metals, but to enable civilised nations to neutralise its effects. So aided, England and Scotland, happily united as Great Britain, began to make great progress in commerce and industry, and ere long shot ahead of the rest of the world alike in manufactures and in shipping. War, too, became robbed of one of its most paralysing effects, and coin was procurable to maintain British armies in foreign campaigns without the consequent drain of gold and silver producing a fatal gap in the domestic currency. It was the Bank of England which supported Marlborough, and, besides checking the first grand leap of France towards the military dominion of Europe, helped to wreath around the British standards the laurels of Blenheim and Malplaquet, of Ramilies and Oudenarde. The Hanoverian war of George II. required the export of quite as much specie as was needed in the initial war-operations of William III. which had paralysed the Government in 1694. Much more specie was required for the world-wide wars of the great Chatham; and specie also was required for the

war with our American Colonies, which were supported against us by France, Holland, and Spain—that is, by fully one-half of the entire military and naval power of Europe. These wars passed by, yet the currency of Great Britain remained sufficient for the wants of the people: the Banks extending their issue of notes in substitution for the exported coin, and thereby preventing a dearth of the circulating medium,—the means of effecting all kinds of exchange (whether of goods, labour, or capital), and which is alike the sinews of war and the life's-blood of trade and industry.

But beyond the occasional and transient demands for the precious metals for the purposes of foreign war, there occurred in Great Britain, during the eighteenth century, a mighty expansion of industrial production and foreign commerce, such as would have been impracticable but for the paper-money or note-currency supplied by the Banks. It was in the latter half of the century that this industrial and commercial expansion was peculiarly notable. The Rebellion of 1745 was over,—that brilliant and really marvellous uprising and invasion of England by the Highland clans, whereby the Scottish mountaineers were within an ace of overthrowing the reigning dynasty, and placing a king of their own choice—the chivalrous heir of the old race of Stuart Kings—upon the throne of Great Britain. Thereafter Scotland, in heart as much as by law, became firmly united with England; and the rebel Clans of '45 and their descendants furnished some of the finest regi-

ments which followed the banner of St George, and aided gallantly in extending British dominion into every quarter of the globe,—from the Canadas to the Cape of Good Hope, and from Egypt in temporary occupation to India and the adjoining Isles, where Clive had laid the foundations of our great Empire in the East.

It is little remembered that there was a Canal Mania in this country long before the kindred but more startling and extravagant Railway Mania of 1845-6. All our chief canals belong to the last century; regular coasting navigation, too, became established; and in proportion to the confined state of trade at that time, the impulse which this cheap coasting and internal navigation gave to production and commercial exchange was not uncomparable to that which Railways gave to the far vaster trade and traffic in the middle of the present century. Adam Smith, writing of this change in the means of conveyance in his time, said:—"A broad-wheeled waggon, attended by two men, and drawn by eight horses, in about six weeks' time carries and brings back, between Edinburgh and London, near four tons' weight of goods. In about the same time, a ship, navigated by six or eight men, and sailing between the ports of London and Leith, frequently carries and brings back two hundred tons' weight of goods. Six or eight men, therefore, by the help of water-carriage, can carry and bring back in the same time the same quantity of goods between London and Edinburgh as fifty broad-wheeled waggons,

attended by one hundred men, and drawn by four hundred horses. Upon 200 tons of goods, therefore, carried by the cheapest land-carriage from London to Edinburgh, there must be charged the maintenance of 100 men for 3 weeks, and both the maintenance and, what is nearly equal to the maintenance, the wear and tear of 400 horses as well as of 50 great waggons. Whereas, upon the same quantity of goods carried by water [to the same distance], there is to be charged only the maintenance of 6 or 8 men and the wear and tear of a ship of 200 tons' burden, together with the value of the superior risk, or difference of the insurance, between land and water carriage. . . . What goods could bear the expense of *land-carriage* between London and Calcutta?"¹

Dazzled by our own recent progress, nearly all writers have paid too little regard to the outburst of industrial power and enterprise in the latter half of the past century. Aided by the steam-engine—the new giant of industry, matured and perfected by the genius of Watt—our people began to develop the vast mineral resources of their country, which happened to be by far the most useful and industrially valuable of the subterranean treasures

¹ *Wealth of Nations*, book i. c. 2. As needs hardly be observed, the invention of Railways has greatly altered the case, and the cost of conveying 200 tons' weight of ordinary merchandise, like grain, from Edinburgh to London is at present only about £250, or 25s. per ton. On the other hand, the application of the steam-engine to navigation has cheapened water-carriage by greatly shortening the duration of the voyage, whereby within the same time a ship may make (say) two or three voyages instead of one.

of the globe. Then for the first time our vast coal-fields and beds of iron-ore became sedulously utilised; and the new and giant-like powers of the steam-engine enabled our people to follow and work the seams of the "black diamond" to depths which previously would have been utterly beyond reach. Coal and Iron—the chief and characteristic agents of the material progress of the present age—then became the twin pillars of England's greatness. Iron-made machinery, moved by the steam-engine, began to supplant hand-work in nearly all the departments of production, marvellously multiplying the potency of human labour. Not only possessing gigantic force, but also wonderfully delicate in the perfect precision of its movements, steam-driven machinery was quickly applied, by the inventions of Arkwright and others, to textile manufactures, —vastly cheapening all sorts of clothes for mankind and textile furniture for their dwellings, so that the peasant may now dress himself in fabrics which previously might have been envied by the peer, and bringing even into the cottage a degree of comfort which had been rarely enjoyed in the baronial castle of feudal times. So vast was the economy of these new manufacturing appliances that cotton grown on the banks of the Ganges or Godavery could be brought to this little island in the Northern Seas, then spun into calico of various-coloured pattern, and thereafter sent back across the Atlantic, or eight thousand miles to India, and sold in the bazaars at a lower price than the cotton could be

manufactured on the spot where it was grown. Our native wool, and by-and-by jute and hemp and other foreign materials, were likewise utilised by the new motive-power and machinery. British manufacturing power thus became immensely in excess of the wants of our own people, and the surplus production became the basis of the Foreign Trade which for a century has enriched our people far beyond what was possible merely from the natural resources of our own little islands.

Before the end of the century, too, England became mistress of the seas, while in war or in peace she had planted or acquired settlements in every quarter of the globe,—the trade with which dominions supplied her merchants with markets even when (as ere long happened) all Europe was shut against her. William Pitt discerned this requirement of Britain's prosperity at the outset. Richly endowed by Nature with stores of coal and iron, our country was then beginning to teem with labour-saving machinery and with the means of almost illimitable manufacturing production. But of what use could be those vast powers and ingenious mechanical appliances unless there were markets for the products? These new powers demanded a far wider world to be supplied than that presented by our own country and people. England desired the whole world as a market; and unless a very large portion of the rest of the world were open to her goods, she would be shorn of her peculiar strength, —cramped and dwarfed by her surroundings, like

an acorn, the seed of a mighty oak, planted in a flower-pot. Coal and iron, with their offspring the steam-engine, presented the powers and means for the profitable employment of a large population, working for and comfortably maintained at the expense of foreign countries, and possessing and ready to expand a splendid commercial marine capable of conveying these surplus goods, the products of her manufactures far in excess of the wants of her own people, to every quarter of the globe. Yet, without the needful outlets, England would continue to be "this little Isle" of the Bard of Avon, limited alike in wealth and in population to the condition of one of the smallest of the world's States. What was wanted was an Empire—certainly outlets, markets, alike for national greatness and for the comfort of a growing population.

William Pitt, we repeat, discerned this national requirement, and gave to it a foremost place in his imperial policy. The States of Europe had then begun to fight not merely at home, but for the dominion or possession of the rest of the globe; and Pitt converted an unavoidable war into a means of obtaining for the vast new productive powers of his country a wide circle of markets, without which a large portion of those powers must have remained ineffective, an idle surplusage of strength. Pitt made Great Britain the centre of a far larger world of colonies and dominions, between which and the mother-country (by the system of "differential duties") he established a commercial League, de-

signed to secure permanent markets for British goods and also an adequate supply of the raw materials for our use, even though the ports of Europe were shut against us, or though Foreign countries in general should raise around themselves a barrier of hostile or prohibitory tariffs. Great Britain was becoming fit to be the workshop of the world: but at the worst, with her Colonies and the dominion of the seas, she need not lack a field for her immense powers of production. So thought William Pitt. And in truth, besides their fame as warriors, our great Admirals—Howe, Jervis, and Nelson, even Anson and Cook—must fairly be regarded as founders and forerunners of the mighty Foreign Trade of England.

Then for the first time Foreign-made fortunes became a feature of English life. Though not so numerous nor so princely as those of the present age, these foreign-won fortunes figured more prominently in our social life, owing to the rarity or absence of competing forms of wealth. The colossal wealth-making powers of Manufacture were then only in their infancy. They were far from that acme of enterprise and perfection which nowadays enables vast fortunes to be acquired in the manufacture even of steel-pens, sold at sixpence the boxful, or other such small but widely useful commodities. Mercantile and foreign-made wealth preceded the growth of fortunes made from domestic industry; and as Commerce gives a wider and higher training in knowledge and in the humanities of life than

belongs to the narrower trade of factory-production, the Plutocracy of that generation was, relatively to the general condition of the nation, superior in intellectual temperament and geniality of character to that of more recent times.

In those days, when England was still a poor country, — when the vast mineral beds which have given to us our subsequent material prosperity were only beginning to be developed, and our native resources were still chiefly measured by our small territory and a fitful if not inclement climate,—it was Foreign trade and Foreign venture which first brought in another kind of wealth and a non-territorial class of fortunes. And it was from the Indies, both East and West, that this new wealth chiefly came. The East India Company had commenced its historically famous career, alike in trade and in conquest; while Jamaica and the other richly productive islands of the Gulf of Mexico—the imperfect Mediterranean of the New World—with their sugar and cotton fields, worked by the hardy and easily contented Negro, supplied “plantations” where Agriculture yielded golden harvests, which appeared magical to the followers of the same Art in the British Isles. The Hudson Bay Company, too, had begun its career, utilising in commerce the abundant animal spoils of the Canadas and the Rocky Mountains, extending their trading and military posts from the upper course of the St Lawrence river to Oregon and Vancouver’s Island, — not inaptly paralleling among the wild Indian

tribes of semi-Arctic America the half-military half-commercial career of the East India Company among the dense population and civilised States of the Asiatic peninsula. So, the yellow-skinned "Nabob," who had been shaking the "Pagoda-tree" while its boughs were still heavy with golden fruit; the bilious and half-swarthy West India Planter, sometimes with children (styled nephews or nieces) showing in their complexion traces more or less strong of the Negro blood; the old Indian Colonel or General, with well-filled purse, or the retired East Indian naval captain, who had made money from the trading-ventures which the Company allowed him to engage in on his own account, as part of the cargo of his ship:—all these classes of men, returning to their native country, brought with them foreign-won wealth to spend or leave to their heirs in this little and still poor island among the fogs and storms of the North Atlantic. Bristol and Glasgow then rose into prosperity upon the profits of the West India trade, and upon the lucrative produce of the "plantations,"—also acquiring as a valuable industry the manufacture of the raw produce of the sugar-islands. The leading families in Bristol, the old maritime capital of England, still date from that time and trade; and sugar-refining, though sadly smitten by the bounty-aided competition of France, is still a characteristic industry of the place. In Glasgow the names of some of its busiest streets attest the old and prized connection of that city with Jamaica and the sugar-islands in

their heyday, before Negro Emancipation; and not the least attractive feature of the hospitality of the Glasgow merchants and burgesses, in those hard-drinking times, was the famous "Glasgow punch"—served in a large wassail-bowl of true Chinese fabric, and compounded from the rarest old rum and choicest limes and sugar from the Jamaica plantations.

Here, then, throughout the eighteenth century, and especially in the latter half of it, there was a remarkable outburst of trade, accompanied and interspersed with a series of world-wide wars, of much grander scope than those which had occurred in the preceding century. Yet before the close of that (the 17th) century, says Adam Smith, metallic money had shown signs of becoming somewhat dear or scarce—that is, somewhat scarcer or less plentiful than money had been since A.D. 1640. Silver, the standard Money of that time, and the metal which since A.D. 1500 had been most copiously supplied to the world—had begun to rise again in value or purchasing-power; and in our Islands an actual dearth of coin had occurred so early as 1692. Is it not obvious, then, that under the wars and remarkable expansion of trade and industrial production which occurred in the following century, the slight scarcity, or initial dearness, of the precious metals observable in the latter portion of the seventeenth century must naturally, if not neutralised or compensated, have become felt as a severe dearth before the end of the next or eighteenth century?

Accordingly, it seems to me that Adam Smith's statement of the case, accepted by all subsequent writers—namely, that the value of silver, or money, in proportion to that of corn, “seems to have risen somewhat in the course of the present [18th] century, and it had probably begun to do so even some time before the end of the last”—is, although correct so far as it goes, seriously incomplete. Doubtless the statement correctly represents the value of the precious metals—or at least of silver, the more plentiful of the two—throughout Europe and America, and also in our own country; but it is of prime importance to bear in mind that in Great Britain the paper-money of the Banks circulated quite as freely as coin (as a matter of fact, rather more freely than coin), and therefore this auxiliary currency acted upon prices exactly in the same manner as if there had been an equal addition to the stock of coin in this country. But for this supply of paper-money, the state of matters as described by Adam Smith would have been very different as regards Great Britain. One of two things must have occurred. Under so great an expansion of trade—vastly multiplying the exchanges of property and payments of wages,—requiring more money or currency alike in the making of canals, sinking of coalpits, building of factories, shipping, &c., and for the increased purchases of a people augmenting in wealth,—coin, and the precious metals as the sole material of coin, must have greatly risen in value; it would have become scarce in proportion to the multiplied demand or

requirements for it. Instead of silver, or money, merely "rising somewhat" in value, as Adam Smith correctly states, there would inevitably have been a most serious monetary dearth,—a change in the value of silver, and of the precious metals generally (our currency being then bi-metallic), such as must notably have engaged the attention of Adam Smith and of the public at large. But in truth, the other alternative would have still more largely occurred, and the scarcity of the precious metals, and the fall of prices, or dearness of money, would have been kept down by the effects of that scarcity in checking or rendering impossible the great expansion of trade and industry which was the chief cause of it. Without the introduction of paper-money, the value of coin might not indeed have risen exorbitantly, but such a monetary dearth could have been avoided only by the absence of the great and memorable expansion of trade, which was so beneficial to this country, and to a large portion of mankind in other countries also.

I have sometimes endeavoured to conceive for myself what would have been the fortunes of Great Britain if our banks of issue had never been devised and established,—or at least not established until the present century; but even in this latter and narrower conception, I have felt myself baffled. I doubt if the imagination of the highest genius could succeed in realising a state of matters which must have been so widely different from what has been the actual course of events. Not only our own country,

but Europe, all Christendom, would have been cramped by a dearth of Money, the circulating medium, the means by which all exchanges both of goods and labour, indeed the whole ongoings of civilised life and government, are effectively carried on. Barter means Barbarism, or at least Poverty—usually both: it is the mere cart of Industry without the wheels. The absence of Money puts all Trade and Industry in fetters. Further, along with this industrial stagnation—which would have left our minerals unworked, our factories unbuilt, and which everywhere would have deprived Labour of employment and Industry of its fair profits,—what suffering and distress, what discontent and social bitterness of heart and rebelliousness of thought, would have been occasioned by the dearth of money, and great fall in prices! Every man of the industrial classes would have felt himself growing poorer,—his goods and labour daily decreasing in value, while taxation would be slow to fall, and old debts and obligations grew heavier and heavier.

How different from this was the condition of Great Britain during last century! The precious metals, the sole material of coin or money, were growing scarcer, but in our Banks of issue this country found an adequate remedy, maintaining the currency at the required level,—actually increasing it without cost as the public requirements increased; and its only imperfections, as in England, such as were due to the unwise and mistaken policy of the Government. So supported, Scotland and England then shot ahead

of the rest of the world. For the first time, Great Britain appeared as a great manufacturing and trading State, and commenced that career which she pursued unrivalled for at least a century. Ireland failed, or knew not how, to call to her aid the vast powers of Credit and credit-money, by which her sister island so greatly prospered; and hence, I cannot but think, one cause of Ireland's lagging behind in industry and prosperity. One might even ask how our great and naturally wealthy neighbour France would have fared if, instead of the dazzling illusions of Law of Lauriston, her Government had imitated and fostered the grand and immeasurably beneficent Banking system of William Paterson.

Two Scotchmen then held in their hands the fortunes of European progress and the wellbeing of civilised mankind. Like the rival genii or fairies of olden fable, they stood by the cradle of Modern Europe—which, by its marvellous physical inventions, and conquest of the powers of Nature, was destined to head and guide the world's Civilisation for at least two centuries to come,—offering to that infant giant two rival schemes of wealth-making, of growth, and of prosperity. The one offered a talisman which would suddenly open to possession a mine of wealth,—even as the old Fairy's rod supplied the brightest desires of Cinderella by transmuting the commonest articles into wealth and splendour, yet which in a few hours were doomed to vanish or return to their original sordidness, and which any mistake or yielding of their owner to the

temptations of enjoyment would but cover her with humiliation and dismay. The other godfather of the infant Civilisation likewise offered a talisman, but one which yielded its treasures only to wise using and self-restraint, and, albeit with increasing and illimitable abundance, only slowly compared with the instantaneous magic of the rival and more alluring system. England and Scotland through their respective Parliaments chose the grand and bold, yet really safely-based scheme of Paterson; France, fonder of dazzle and dash, and led by a greedy and voluptuous Court, grasped the project of Law,—only to see, in the famous Mississippi Scheme, how the first and sudden transmutation of paper into a wealth of gold and silver, making a fancied Golden Age, quickly relapsed into worthlessness, spreading desolation and misery, exactly measured by the broken hopes and lavish expenditure in which the French Court and nation had been led to indulge. As the Coin given by Wizards to mortals in illicit bargains turned speedily into pieces of common slate-stone, so fared it with the fancied gains at first reaped from the schemes of Law. “Like fairy gifts fading away,” the treasure turned into dross; leaving France not only as poor as before, but much poorer, because of her lavish expenditure of merely anticipated gains—of baseless profits, which had never actually been won—and which, when the bubble burst, became a crushing load of debt and general impoverishment.

It was the national burdens consequent upon the